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OF
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VOL. I

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THE BRITISH JOURNAL OF CHILDREN'S DISEASES

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GEORGE CARPENTER, M.D.

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THE
BRITISH JOURNAL
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VOL. I.

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No. 1.

Introductory.

IN 1896 a praiseworthy attempt was made in this country to start an Anglo-American Journal of Children's Diseases, to be published simultaneously here and in America. The English edition was not a financial success, and in a short time the venture succumbed to inanition as far as this country was concerned. The American publication, however, grew rapidly and flourished, and continues to flourish, in spite of the fact that there is another and senior journal dealing with diseases of children, viz. the well-known 'Archives of Pediatrics.' The Americans at this time, be it understood, were far in advance of Englishmen in all matters relating to children's complaints. Men in the United States whose names are a household word there devoted their lives to that study, and the children's hospitals in that country justified their existence by the good work which emanated from them at the hands of the men who honoured them by their intelligence and industry. Such well-known organisations for the study of children's complaints as the American Pediatric Society and the Philadelphia Pediatric Society were in active operation while in the Mother Country nothing was done, and the serious study

of children's ailments, which was of national importance and a national want, received but scant attention. When we make this observation, be it understood that we are speaking in a general sense. We fully appreciate, and do not intend to belittle, the good work done by a few of our countrymen, but their work is more work of the past than of the present. Although 'Pediatries' abandoned its English edition, the flow of fresh works on children's complaints from the other side of the Atlantic still continued to bear witness to the activity of our American cousins in this branch of study and literature. In 1900, however, this country at last was moved from its slumbers, and waking up to its necessities, a Society for the Study of Disease in Children was inaugurated. This Society may now be recognised as firmly established, and while naturally the clinical material for the meetings is largely supplied by those whose work is specially in connection with diseases of children, the large number of general practitioners who attend and participate in the debates shows that their interest has been thoroughly aroused and that a long-felt want has been supplied. The annual 'Reports' which it issues, of which three volumes have been published, bear witness to its good work and the industry of its members. The large and increasing attendances at its meetings, and the sustained and growing interest in this special branch of study displayed by its members, testifies to the strong virility of this Society and of the potential energy for future good work. The study of special branches of medical literature requires that Great Britain shall have an organ whereby it may exchange its news with the rest of the world interested in such matters, and record the work done in its midst, and at the same time present to its readers the work accomplished by others in the same field of labour. In respect to a children's journal Great Britain is years behind foreign countries, to wit America, France, Germany, and Italy, not to mention others, which are well provided in this direction and have been so for some time past.

Under such circumstances, the 'British Journal of Children's Diseases' need make no apology for this, its first appearance. The pages of the JOURNAL will always be open to any who may have cases of interest or observations of value to record. It will be well

illustrated, and photographs or drawings fit for reproduction, and of educational value, will be welcomed, and will appear in its pages from time to time. The object of the JOURNAL will be to keep its readers in touch with advances in knowledge in all that relates to the study of disease in children, whether of a scientific or a practical nature. Its pages will not only be devoted to the study of disease in children, but to the prevention of disease, and to all that appertains to the welfare of children, both physical and psychical. We shall hope to receive communications from all who have anything of interest to impart in relation to child life and well-being. Notes on children's hospitals, urban and rural, on convalescent homes for children, the work of societies for the amelioration of the modern conditions of child life, observations on public schools, private and State supported, communications from medical officers of health, coroners, factory inspectors, or others having infants and children under their immediate observation, will, we hope, be brought under the notice of our readers.

The beginning of this century found Great Britain far behind all other nations of any importance in the opportunities afforded for the study of children's diseases, in the encouragement given to undertake that study, and in the facilities at hand for the dissemination of knowledge in respect thereto. May we venture to hope and anticipate that ere many more years have passed this country will be in the van of progress, and that its future medical practitioners will be thoroughly grounded in the knowledge of children's complaints, and that when they receive their diplomas they will be fully equipped in this most important and at present much neglected subject.

If The Society for the Study of Disease in Children and the 'British Journal of Children's Diseases' accomplish this good end, they will not only have fully justified their existence, but they will have accomplished a very worthy mission.

Original Articles.

A CASE OF HEMICRANIA WITH THIRD NERVE PARALYSIS.

By JAMES TAYLOR, M.D., F.R.C.P.,

*Physician to the National Hospital for the Paralysed and Epileptic, Queen Square,
and the North-Eastern Hospital for Children.*

THE patient whose case is the subject of this paper is a little girl, M. R—, aged 13, who came to the out-patient department, Queen Square, early in this year, complaining of a drooping of the left eyelid. She was subsequently admitted into the hospital, and I am indebted to the excellent notes of Dr. Gordon Holmes, the house-physician, for the following particulars, and to Dr. Howland for the photograph. The history was that she had been subject to headaches since early childhood, the pain being situated chiefly in the left frontal region. Vomiting was frequently associated with the headache. She had never had any trouble with her eye until the present attack, nor was there any history of diplopia until a few days before the drooping of the lid. A week before I saw her she had gone to bed one night fairly well, but with a severe headache, and when she awoke next morning she was unable to open her eye. She has not been able to open it since. A few days before this happened she says that she saw double, and her mother had noticed some squinting. Since the appearance of the eye symptoms she has vomited more frequently; indeed, during the last week the sickness has been almost continuous, and is quite unrelated to the taking of food. She had had a feeling of numbness on the left side of the cheek for about a week before I saw her. She was a delicate-looking child, bright and intelligent, and no abnormality was discovered, except that she had ptosis, external strabismus, defective upward, downward, and inward movement of the left eye, and a dilated pupil. She had, in short, paralysis of all the branches of the third nerve. The only other sign of disease about her was the presence of a presystolic murmur in the mitral area.

The progress of the case may be briefly related. She was taken into the hospital and treated with galvanism to the left eye, and half-drachm doses of the syrup of the iodide of iron. She was given full diet. On only one occasion was the headache so severe as to need any special treatment, and on that occasion a dose of five grains of phenacetin was sufficient to relieve her. She was only twenty-three days in the hospital, but when she went out all signs of her

FIG. 1.



paralysis had disappeared. The disappearance of the paralysis had been gradual. I have seen her frequently since, and, so far, there has been no obvious recurrence of the paralysis, although she says that on one occasion, after a severe headache, there was a little drooping of the left eyelid.

It may not be quite correct to look upon this as one of those cases of "*recurrent*" paralysis of the third nerve associated with one-sided headache, for there has been only one definite attack of paralysis. But at all events it is a case of one-sided recurrent headache, in which paralysis of the third nerve on one occasion was associated

with an unusually severe attack of head pain. The occurrence of cases in which such symptoms have been present, and in which paralysis of the third nerve has taken place repeatedly, is now well recognised. In some cases, apparently of a similar nature, paralysis of other cranial nerves—fourth, fifth, sixth, or seventh—as well as of the third has been present. In one case both third nerves suffered, and occasionally a slight degree of optic atrophy has been described. But by far the most common variety—so much the most common as really to constitute a class—is that in which the third nerve is the only nerve affected. In such cases the usual history is that the attacks of paralysis are as a rule recovered from—completely at first, less and less completely afterwards, until finally the patient is left with very marked defect in all the parts that are supplied by the third nerve. Such cases have been called cases of migraine with third nerve paralysis, and Charcot* invented the name of “*migraine ophthalmoplegique*” to distinguish them from the ordinary attacks of migraine with visual symptoms—“*migraine ophthalmique*.” But it seems to me, as it has seemed to other observers, that there is an essential distinction between the two kinds of cases, for, so far as I am aware, no case of migraine with visual symptoms (hemianopsia, fortification lines, etc.) has been recorded in which there was associated third nerve paralysis, nor, on the other hand, am I aware of any case of hemicrania with third nerve paralysis in which the fortification lines or other visual phenomena of ordinary migraine were present. And while agreeing that the headaches in the two classes of cases are similar in their intensity and in their locality, I should be inclined to regard the cases associated with third nerve paralysis as essentially different in origin, and in most instances probably dependent upon some actual lesion in or affecting the third nerve itself. Mr. Holmes Spicer and Dr. Ormerod† have contributed a very exhaustive paper on those cases, and have quoted all the cases then available of the condition which had been published. It is a significant thing that, in all the cases in which there has been an opportunity of examining the condition post mortem, some morbid condition involving the trunk of the third nerve itself has been discovered, either tumour, or exudation, or granulations; and I am inclined to think that in all the cases in which this recurrent form of paralysis occurs there is a danger lest it may in time become permanent, and that it is probably due to some actual change in the nerve itself. When such a change becomes severe or extensive it will interfere

* ‘Prog. médical,’ August, 1890.

† ‘Ophth. Soc. Trans.’ vol. xvi.

with the function of the third nerve, whereas in the earlier and less severe stages it is only sufficient, perhaps by exciting more sensitive structures, to set up severe headache. As the morbid process gradually encroaches on the nerve it will tend to cause structural changes in it, and finally to abolish the function entirely. Such a pathological explanation corresponds with the clinical history of many of the cases. I am apprehensive lest in the case which I now relate the one attack of third nerve paralysis, and the still persistent unilateral headache, may indicate the presence of some actual lesion in the nerve itself; and if this view is correct a recurrence of the paralysis must, I fear, be anticipated.

A NOTE ON THE ANTIQUITY OF ACHONDROPLASIA.

By GEORGE PERNET,

Assistant to the Skin Department, University College Hospital.

THERE are at the British Museum a number of small Egyptian glazed earthenware figures (statuettes), most of them of some shade of green, which represent the deformity to which Parrot gave the name of achondroplasia (since re-christened chondrodystrophia foetalis, and also called micromelia). The illustrations (Figs. 1 and 2) represent the statuette No. 128 (Case 131, third Egyptian room) in two positions, full face and profile. These drawings, as also those representing No. 131, have been made from the actual specimens by the kind permission of the trustees of the British Museum.

This statuette has been depicted in profile in Arundale and Bonomi's 'Gallery of Antiquities selected from the British Museum' (1842, plate vii, fig. 19), and copied thence into Wiedemann's 'Religion of the Ancient Egyptians' (London, 1897, fig. 30, p. 136). The achondroplastic deformity of the figure caught my eye whilst looking through the latter work. It is there designated as one of the *Khnûmû*, and on page 137 the following remarks occur:—"In the work of creation Ptah had been helped by the *Khnûmû*, 'the modellers,' who were generally counted as his children, although later as those of Ra. They were represented as dwarfs with big heads, crooked legs, very long arms, and long monstaches; * grotesque figures which, as Herodotus † tells us, excited the derision of Kambyzes

* Query Snakes? (Trans.) (Wiedemann, *op. cit. supra*).

† Herodotus, iii, 37 (cf. Wiedemann, 'Herodot's Zweites Buch,' p. 236, *op. cit. supra*).

in the temple of Hephaesto at Memphis. Countless little glazed earthenware figures of these gods are found in Egyptian tombs; for even as once the Klmûmû had helped in the making of the world, so would they help to reconstruct in all its members the body of the dead man in whose tomb they were laid." With reference to the foregoing quotation I should like to point out that the arms are not very long, but on the contrary very short (micromelia).

According to Dr. E. A. Wallis Budge, keeper of the Egyptian

FIG. 1.

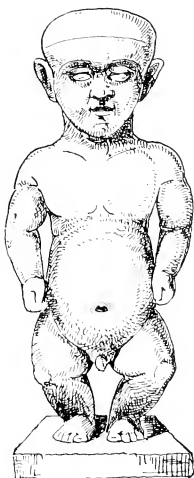


FIG. 2.



and Assyrian antiquities at the British Museum, to whom I am indebted for the information, these statuettes are representations of the god Ptah-Seker-Asar, the triune god of the Resurrection. At the time of my visit to the Museum, Dr. Wallis Budge also kindly pointed out to me an archaic representation of a dwarf in relief on a stone (No. 35018, Case 7, landing of the north-west staircase close to the third Egyptian room), going back to 4000 B.C. The dwarf was an object of veneration, for the stone was his tombstone. This representation is so primitive that it is impossible to say for certain

if it was meant for an achondroplastic condition, which deformity is undoubted in the case of the statuettes illustrated in this note. In the Case 131 (*vide supra*) there are numerous similar statuettes. I would here mention No. 131 with part of one leg missing, shown in Figs. 3 and 4 (full face and profile).

In the interesting work on 'Les Difformes et les Malades dans l'Art' (1889), by the late Professor Charcot and Dr. Paul Richer, a

FIG. 3.

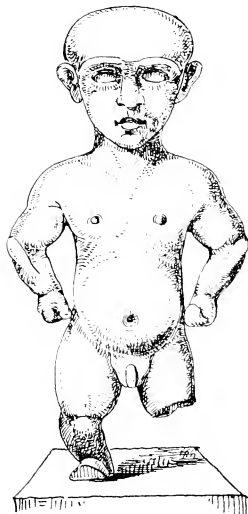
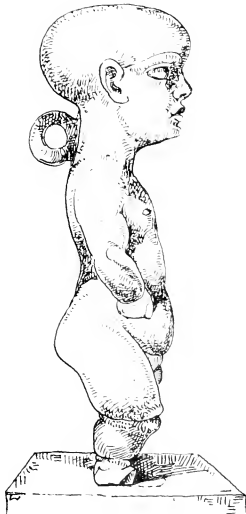


FIG. 4.



chapter is devoted to "Les Nains, les Bouffons, les Idiots." * In it (p. 13) there is a reference to the statuette of the dwarf Khnouhmotpou (Boulak Museum), with two drawings which are here reproduced. In connection with this figure the authors mention the achondroplastic malformation described by Parrot, and make the following remarks:—"Qu'il faille l'appeler comme le voulait Mariette, un cuisinier ou, comme le propose M. Maspero, un chef des parfums ou un maître de

* See also Richer's recent beautiful edition of this work, 'L'Art et la Médecine,' 1902.

la garde-robe, Khnoumhotpou dut être un personnage. Il avait à Sakkarah une des belles tombes de la Nécropole."

Looking at these figures, the idea of connecting them with the ancient fable of the pigmies has no doubt occurred to others, just as it did to Chareot and Richer. That pigmies do exist in Africa is now a well-established fact and no fable. Du Chaillu, in his 'Country of the Dwarfs' (1872), refers to the forest dwarfs he saw as well proportioned. In this connection I may in passing mention Tyson's Pygmie, which was identified by Huxley ('Man's Place in Nature,' 1875, p. 13), who had an opportunity of examining the actual skeleton preserved in the Cheltenham Museum, as *Troglodytes niger*. Those interested in the subject will find many curious details in Edward Tyson's 'Philological Essay concerning the Pygmies, the Cynocephali, the Satyrs and Sphinges of the Ancients,' 1699, or in Professor Bertram Windle's recent edition of that essay. The evidence therefore points to the conclusion that the Egyptian glazed figures in our British Museum to which I have ventured to call attention are examples of achondroplasia, and are not representative of the Negrilloes, or African pigmies. An interesting point about the Negrilloes is that they are covered with a fairly thick down over the entire body (*vide* Deniker's 'Races of Man,' 1900, p. 456).

I cannot conclude without alluding to Dr. Pierre Marie's illustrated paper on "L'Achondroplasie dans l'Adolescence et l'Âge Adulte" ('La Presse Médicale,' No. 56, 1900, p. 17), especially as to the possibility of achondroplasia being hereditary—a point, I may add, of some archaeological interest in the case of the statuettes of the god Ptah-Seker-Asar, the triune god of the Resurrection, and of the so-called Khmûmû of the ancient Egyptians.

CONGENITAL HYPERTROPHIC STENOSIS OF PYLORUS.*

By EDMUND CAUTLEY, M.D.Cantab., F.R.C.P.Lond.,

Physician to the Belgrave Hospital for Children, and the Metropolitan Hospital.

It is almost justifiable to speak of congenital hypertrophic stenosis of the pylorus as a new disease, for it has attracted very little attention until recent years, although no doubt it has existed from

Read before The Society for the Study of Disease in Children, November the 20th, 1902.

time immemorial. The earliest record of the affection in infancy is in 1841, when Williamson showed a specimen at a meeting of the Anatomical Society in Edinburgh, as "A Case of Scirrhus of the Stomach, probably Congenital." Death had resulted at the age of five weeks after the usual symptoms, and with the characteristic post-mortem appearances. He regarded the condition as "a peculiar hypertrophy or modification of the cellular tissues," and he stated that he was unaware of any other cases. Dr. William Osler, of Baltimore, has, however, found the record of a case in a volume entitled 'Cases and Observations by the Medical Society of New Haven County, in the State of Connecticut,' New Haven, 1788. The case was reported by Hezekiah Beardsley as a "Case of Scirrhus in the Pylorus of an Infant." Although the symptoms dated from the first week of life, the child lived to his fifth year. Another case was recorded by Dawosky in 1842, but after that no more were reported until 1888. In a paper on the subject read before the Royal Medical and Chirurgical Society on November the 8th, 1898 ('Med.-Chir. Trans.,' vol. lxxxii, 1899), I gave a *résumé* of seventeen cases collected from medical literature, together with details of two fresh cases, and of a specimen in the museum of St. Bartholomew's Hospital. Of these twenty cases, three had been under Dr. John Thomson, of Edinburgh, who had published two valuable papers on the subject.

Since then the affection has attracted more attention. In a joint paper with Mr. Clinton T. Dent, read before the Royal Medical and Chirurgical Society on December the 9th, 1902 ('Med.-Chir. Trans.,' vol. lxxxvi, 1903), we mentioned that the total number of recorded cases was then well over fifty, and that we were able to set forth details of nineteen cases of operation to relieve the stenosis. More cases have been recognised during the present year, many of which have not been reported. Three have come under my own observation.

Enough has been said to show that the disease may be uncommon, but that, as I stated in my first paper, "it is not so extremely rare as might be supposed." It is distinctly the cause of that symptomatic disease "marasmus" in some cases. In view of the enormous number of deaths ascribed vaguely to "debility, atrophy, and inanition," it is highly probable that, when attention is directed to this affection, some of them will be recognised as due to this cause, and as capable of being saved by proper treatment.

No less than ten cases have come under my notice since 1897. That the affection is not more frequently recognised is partly due to the difficulty of diagnosis, unless attention is specially directed to

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this point. One of the main symptoms is vomiting, but infants vomit so frequently that the symptom does not always attract the attention it deserves. Again, in hospital practice the cases may not get beyond the out-patient room, where they are treated as simple cases of marasmus.

For these reasons it is of the highest importance that the subject should be well ventilated. It is one which more especially concerns the family practitioner. As will be seen from the consideration of the age, the mode of onset, the symptoms, and the cause of the disease, the responsibility of diagnosis and treatment will in the first instance fall upon the doctor who has attended the mother in her confinement. The symptoms develop early, and the earlier the affection is diagnosed, the better chance has the child. The greatest care must be used in making a diagnosis, or infants will be operated on unnecessarily for vomiting and constipation due to other causes. It is more probable that an error in diagnosis be made in the other direction, and that the vomiting will be ascribed to some error in the diet, or its importance may not be recognised.

SUMMARY OF CASES.

No.	Date.	Sex.	Age.		Nature of operation	Remarks.	Reference.
			At death.	At operation			
1	1897	M.	14 weeks	—	—	In hospital for 9 days; weight 7½ lbs.	Med.-Chir. Trans., vol. lxxxii, 1899.
2	1897	M.	7 weeks	—	—	Died as an out-patient after one attendance	Ibid.
3	1900	F.	3 months	—	—	Died the day after admission; weight 6 lbs. 3 oz.	Lancet, 1900, vol. ii, 256.
4	1901	M.	9 weeks	—	—	Under me as an out-patient; admitted as in-patient; weight 4 lbs. 8 oz.	Blackadder, Brit. Med. Journ., 1901, vol. i, 765.
5	1902	M.	2 months	—	—	Examined by me, post mortem, for Dr. Champneys	Brit. Med. Journ., 1902, vol. i, 1340.
6	1902	M.	5 months	8 weeks	Pyloroplasty	Readmitted subsequently, and died from epidemic diarrhoea	Cautley and Dent, Med.-Chir. Trans., vol. lxxxvi, 1903.
7	1902	M.	—	6 weeks	Ditto.	Is a very fine, strong child	Ibid.
8	1903	M.	—	7 weeks	Ditto.	Subsequently had a bad attack of enteritis due to improper feeding	Repts. of Soc. for Dis. in Children, vol. iv, 1904.
9	1903	M.	14 weeks	—	—	Showed a marked absence of some of the characteristic symptoms.	Ibid.
10	1903	F.	—	5 weeks	Pyloroplasty	Uninterrupted recovery	Ibid.

From the appended summary of ten cases, it will be noted that there were eight males and two females. Such a preponderance of males is not seen when larger numbers are taken, and there is no reason why males should be more susceptible than females. The family history does not seem to have any influence. As a general rule the other children of the family are healthy. A neurotic history was markedly present in two cases (5 and 10), and might be thought of importance by those who, like Dr. Thomson, hold the view that the cause lies in defective innervation, naming the affection "congenital gastric spasm." In one case (7) the grandmother on the father's side lost a sister in infancy whose death was ascribed to "nothing passing through her stomach." This child vomited everything. In Case 10 it was also a coincidence that the maternal grandmother had had some operation on the pylorus in later life.

Symptoms.—In almost every case it has been noted that the child was "a fine baby born." Sometimes it is the firstborn, at others it is a later child, the first children being quite unaffected. The first symptoms may come on a few hours after birth, or may not appear for a month or more. Usually they appear in the second or third week. Until the child starts vomiting there may be no indication of anything wrong. In some instances it has been noted that the babe has not taken food as readily as previous infants, that it is more easily satisfied. Or there may be flatulence and constipation. Vomiting is the most important and the most characteristic symptom. It is not accompanied by nausea, and the intervals between the attacks may be fairly long ones. In the best marked cases two or three feeds are kept down, and then apparently the whole lot is brought up at once. Gradually the vomiting becomes more and more frequent, and may occur on the administration of the smallest quantities of food. In rare instances it is not a marked feature. The act of vomiting is a forcible one, like that seen in older children. It causes some pain, but the babe is most comfortable when the stomach is empty. The character of the vomit depends upon the diet. There is no bile present. In late stages there may be mucus in it. Constipation may be present throughout, and may be a marked feature. It is not invariably present, being dependent upon the amount of stenosis. Sometimes there is actual diarrhoea, though the stools may be small. This results from irritation from decomposing or unsuitable food which has passed through the pylorus. The tongue is clean and the breath sweet in typical cases. On inspection of the abdomen there are no signs of intestinal obstruction.

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Usually there is distinct evidence of gastric dilatation, and visible peristalsis may be present. In a marked case a wave of peristalsis may be seen passing from left to right, stopping at the pylorus momentarily, and then passing onwards down the duodenum. It may be induced by tapping the epigastrium or by applying a cold finger. On the other hand, it must not be forgotten that dilatation of the stomach and visible peristalsis may occur independently of stenosis of the pylorus of this nature; also, that the stomach is not necessarily dilated during the earlier stages. The pylorus can usually be felt, on careful palpation, about half an inch to the right of and three quarters of an inch above the umbilicus. It is deeply seated, and feels about the size and shape of a filbert. I have felt it in the last five cases which I have seen. The general condition of the child in late stages is that of marasmus, due to starvation.

The *diagnosis* is based on the history of progressive wasting, vomiting increasing in frequency and characteristic of pyloric obstruction, constipation, clean tongue, sweet breath, dilatation of the stomach, visible peristalsis, and the presence of a tumour. It must not be mistaken for the simple regurgitation of food so common in infants, or for simple gastric catarrh. I believe, too, in the existence of cases of pure pyloric spasm leading to death from persistent vomiting—cases in which no hypertrophy of the pylorus is found at the autopsy. Such cases are very difficult to diagnose from the affection under consideration. Possibly operative treatment is the most appropriate measure in these also.

The *anatomical condition* found post mortem is a simple but extensive hypertrophy of the circular muscular fibres forming the pylorus. The pylorus, instead of being about the thickness of the old-fashioned wedding-ring, forms a cylindrical tumour about an inch long. The thickening is most marked at the duodenal end, and thins off towards the stomach. Looked at from the stomach side, the pylorus is funnel-shaped. From the duodenal side it has the appearance of projecting into the duodenum, and looks like the os uteri. The stenosis is not complete, for it is easy to pass a probe through. For practical purposes it may be regarded as complete in many cases, for the mucous membrane is thrown into folds by the contraction of the circular muscular fibres, or into one large fold, which stands out, when the pylorus is laid open, like the verumontanum in the prostate. These folds of mucous membrane complete the obstruction during life. The degree of stenosis after death depends partly on post-mortem contraction, and is no measure of the stenosis during life. In one instance (9) nothing could be squeezed

through the pylorus, but both the small and large intestines contained a considerable quantity of normal faeces.

The *prognosis* is very bad unless operative measures are adopted. It is possible that there are mild cases which may be sufficiently relieved by careful diet, rectal feeding, and by lavage and gavage. Indeed, I have little doubt that some of the cases of hypertrophic stenosis in older children and in adults are simply a persistence and amplification of the infantile condition. My personal feeling is strongly in favour of operation by pyloroplasty. Mr. Clinton T. Dent has operated on four cases for me successfully. The choice of operation lies between pyloroplasty and Loreta's operation, in which the pylorus is simply stretched. It is perhaps too soon to say which will give the best results. On theoretical grounds I can see no possibility of recurrence after pyloroplasty, for the circular muscular fibres are fully divided. Similarly, there seems no strong reason why re-contraction should not ensue after a mere stretching of the muscle-fibres. Granted that the affection has been diagnosed, there is nothing to be gained by waiting, and the chance of life is small under all other methods of treatment.

It must not be thought that all cases are typical. Thus in one (9) there was no characteristic vomiting; no great constipation—in fact, a large, almost normal stool was passed eight days before death; there was no marked dilatation of the stomach; and peristalsis was only seen on one occasion. The pylorus was palpable, however. On the assumption that the degree of stenosis was not severe, and that sufficient food was passing through to support life, operation was postponed, but the child soon succumbed to an attack of diarrhoea and the marasmus. Thus the affection can produce a profound marasmus, although the stenosis is not complete. Probably an operation at an earlier date would have saved the child.

Pathology.—I believe the condition to be due to a simple redundancy of foetal growth. Nature, in her extreme anxiety to provide an efficient pyloric sphincter, has over-exerted herself, and has produced too great a quantity of muscular tissue. Thomson holds that "the essential lesion is not a muscular, but a nervous one—a functional disorder of the nerves of the stomach and pylorus leading to ill-co-ordinated and therefore antagonistic action of their muscular development."

ON CONGENITAL HYPERTROPHIC STENOSIS OF THE PYLORUS.*

By C. T. DENT, M.C., F.R.C.S.,

Surgeon to St. George's Hospital, and to the Belgrave Hospital for Children.

THE number of cases of congenital hypertrophic stenosis of the pylorus that have been operated on in infancy and published† is still so small that it seems desirable to set down some recent clinical experience on the subject, more particularly for the reason that the cases illustrate in their sequel many of the difficulties likely to be experienced. Highly typical cases of the affection may be expected to run a fairly straightforward course, but a fuller knowledge of the affection and the best method of treating it can only be gained by the accumulation of clinical observations.

The first case was that of a patient born on June the 4th, 1903. The mother's age was 33, and the child was her first. The labour was reported to have been a bad one, and the child was delivered with forceps. It weighed at birth about 7 lbs. From the beginning of its life it was fed by hand. Ten or twelve days after birth the symptoms commenced. It was noticed that the child was soon satisfied. The characteristic vomiting then commenced, *i. e.* three or four feeds might be kept down, and then the accumulated stomach contents were violently ejected. Various kinds of foods and medicines were tried, but without effect. Gastric lavage was not employed. When I first saw the child with Dr. Cautley on July the 23rd, the symptoms pointing to the condition, which had been suspected for some little time, of congenital stenosis were so pronounced that it was decided to operate at once.

At the time of operation the child weighed an ounce or two over 5 lbs., having therefore lost about 2 lbs. since its birth. It was exceedingly small and wasted. Gastric peristalsis was occasionally evident. A thickened pylorus had been felt, but when I saw the child I could not make certain that there was any thickening, as the abdomen was a little distended. Even slight distension will prevent the pylorus from being felt. It is not that the thin and supple edge

* Read before The Society for the Study of Disease in Children, November the 20th, 1903.

† In a paper in vol. lxxvi of the 'Med. Chir. Trans.' will be found a *résumé* of twenty cases.

or the liver obscures the pylorus, for in these cases, usually, the pylorus will be found rather lower and rather nearer the middle line than might be expected. The child was fifty-one days old at the time of operation.

The abdominal wall was excessively thin, and the peritoneum almost burst open when exposed. The pylorus was at once felt and drawn up into the wound. It presented a very characteristic and strongly marked instance of congenital hypertrophic stenosis. The thickening involved the pyloric antrum partially, but extended also some way down over the commencement of the duodenum. The thickening was nearly an inch in length, and the tumour had the white appearance that is usually seen in these cases. The stomach was not dilated. Pyloroplasty was performed. A longitudinal incision about an inch and a quarter in length was made through the thickened tissues from the stomach down to the duodenum. The hypertrophied muscle was about half an inch in depth, and gave the characteristic creaking sensation as it was divided. There was marked absence of submucous thickening, and the mucous membrane was very pale. As usual, directly the opening was made into the stomach and a little gas had escaped, the remaining steps of the operation became easier. At the upper and lower extremities of the incision the mucous membrane was united to the stomach and the duodenum respectively. This was done in order to prevent crumpling up of the mucous membrane and consequent obstruction when the pyloroplasty was completed. The central, the most important stitch, was closed first. I have noticed in other cases that there may be considerable drag on this stitch at first owing to the action of the longitudinal muscular fibres of the stomach. If, however, this stitch is closed up rather slowly, the drag can be overcome without any risk of the stitch cutting through. When once closed there is no fear of its giving way. In some instances it may be found advantageous to close the lateral sutures before the central. The best form for the central stitch is a Halsted's suture. The remaining sutures came together satisfactorily and without any difficulty, notwithstanding the marked hypertrophy of the circular fibres. No food was injected into the duodenum at the time of operation. I have always had a feed ready to hand, but I have never actually yet injected it while operating. The proceeding would entail delay, and rapidity in these cases is of the first consequence. Five sutures in all were put in, a quite sufficient number to convert a longitudinal into a transverse wound and to close up the opening completely. An omental graft could easily have been added, but I refrained from doing this, as it

appears to me to be unnecessary and likely to lead to after-trouble. The operation from the commencement to the time that the child was replaced in bed occupied twenty-five minutes. The anæsthetic—a highly important factor in these cases—was admirably given by Mr. W. F. Fedden.

Rectal feeding was employed for the first twenty-four hours, small quantities of hot water being given by the mouth. I think there is no objection in these cases if it is thought necessary, and if the rectal feeds are not well retained, to giving food by the mouth after twelve hours or so; but some blood is generally vomited up after the operation, and so long as there is blood in the stomach it is unlikely that food will be retained. Next day the child took its food—peptonised milk and water—by the mouth fairly well. Two days later the vomiting had practically ceased, and it was evident that the passage through the pylorus was thoroughly patent. The temperature, however, was rather high, though the wound gave no trouble. The child was for many days kept back by constant diarrhœa due to enteritis. The stools were green, as they had been throughout the child's life, and much of the milk was found, undigested, in the stools.

The after-treatment was mainly directed to improve the enteritis. This trouble gradually improved, but the child's general condition mended but slowly. In this instance I had to deal with a rather delicate child in somewhat poor general condition, and operated on rather late. I have little doubt that if the operation had been performed earlier the after-treatment would have given rise to less anxiety. My own experience of these cases leads me to the strong belief that the operation is decidedly indicated when the weight continues to diminish under medical treatment or lavage; and this view is strongly emphasised by the information I have been able to collect, and by a study of the literature of the subject. It is possible that with such treatment the urgency of the symptoms may subside, but the mechanical condition of the pylorus still remains—a point to which I will return,—and there is a great and a constantly increasing risk of gastric dilatation, as well as of grave intestinal changes.

The child left the hospital on August the 27th. The parents lived in a very healthy place, and it was thought that the fresh air and surroundings, other than hospital, might improve the general health.

On September the 22nd, however, as the accounts of its progress were very unfavourable, it was readmitted. The child was then in a very emaciated state, and weighed only 5 lbs. 12 oz., *i. e.* it had

lost 14 oz. in weight since it had left the hospital. There had been some vomiting, but this had not the old character, the stomach contents not being forcibly ejected. The belly was much distended, and the coils of intestine could be plainly seen. There seemed little or no intestinal digestion, and a great deal of fermentation in the intestinal tract. The stools were very colonnless. The vomiting soon ceased under altered conditions of diet and skilled nursing. In this case I found humanised milk answered well. Raw meat juice (cold extract) and cream were also added to the diet. Under this regimen the child soon began to improve, and as the enteritis subsided it began to put on weight fairly rapidly. It was not, however, till the child was nineteen weeks old that its weight was equal to that at the time of birth. It then began to improve much more rapidly, and at the time of writing looks well and happy, and weighs 10 lbs.

The case illustrates well the necessity for early operation in these patients. Delay will always, I believe, increase the difficulties and the anxieties of the after-treatment.

A consideration of the conditions will explain easily enough the sources of the trouble, and the slow improvement when operation is performed in a late stage. However pronounced the degree of hypertrophic stenosis, we may assume that some fluid passes through the pyloric opening. The copious vomit, however, furnishes clear evidence that the amount that escapes from the stomach into the duodenum may be very small. Now physiologists hold that the stimulus to the secretion of the pancreatic juice consists in the introduction into the duodenum of the acid contents of the stomach. The bile is probably excreted continuously. At the same time it seems reasonable to suppose that if the pancreatic juice is diminished in quantity the output of bile is often less. Two conditions then may obtain:—(1) The secretion of the pancreatic juice may be excited by the tardy introduction of the stomach contents into the duodenum, in which case there will be, as it were, an excess of pancreatic fluid in the intestine—more than is sufficient to deal with the minute quantities of food that pass on from the stomach. (2) If the reaction of the gastric contents long retained in the stomach does not preserve its acidity, then, when the food is passed on at an unnaturally late period after it has entered the stomach, the stimulus to the pancreatic secretion will no longer be furnished. The digestion of the fatty elements, therefore, must be gravely interfered with. It becomes, then, very important to ascertain in each case what the reaction of the stomach contents is when the vomit consists of accumulated feeds. Hitherto it does not appear that sufficient attention has been

paid to this point. If the gastric contents from long retention become neutral or alkaline, then the principal stimulus to the secretion of pancreatic juice is abolished, and any portion of the food that has passed through the obstructed pylorus can only be so imperfectly digested in the intestinal tract as to have no nutritive value.

The opinion is now held by physiologists, in marked contra-distinction to the old teaching, that no absorption of water takes place in the stomach itself. Very small quantities of proteid material are taken up. The progress of these children supports this view. In marked cases the patients die about the twelfth week after birth; and they die of starvation. The vomit is so copious that it is evident that very little, if any, of the water has been absorbed from the stomach; at the same time, sufficient absorption of nutritive matter might almost be taken up from the stomach alone to keep the children alive, say, for the few weeks for which they live, if unrelieved.

Of equal importance are the changes that must be brought about in the intestinal tract, particularly in the small intestine. If no food at all gets into the intestine, a point is reached, before actual death occurs from starvation, when recovery is impossible. The epithelial cells that have a selective power in the absorption of food from the intestine become atrophied, and when this stage is reached the introduction of food is useless, for it cannot be absorbed. Not only is nutrition impossible, but material introduced becomes an irritant when it ceases to be a food. In acute cases of hypertrophic stenosis the process of death is due to tolerably rapid starvation. Gradually an atrophic condition of the intestine is brought about, and these changes furnish a very simple and physiological explanation of the principal difficulty that is met with in the after-treatment.

The consideration, then, of the changes that must result from the form of obstruction under consideration in the case of a young child, emphasises strongly the necessity for early operation. The importance of giving mechanical relief to a mechanical disorder is still more marked in the case of infants than in adults, for the intestinal changes will probably go on more rapidly in the case of the very young. Not many years have elapsed since the tendency to undue delay in operating in most forms of intestinal obstruction, save in strangulated external hernia, was unfortunately only too marked. The results were disastrous. Surgeons were not called in until the condition was almost hopeless. Palliative operations—if any operations at all were performed—were the rule, and the want of success was so great when these half-measures were adopted, or

when more radical measures, in rare instances, were employed, that acute or subacute intestinal obstruction came to be looked upon almost as a hopeless condition. Matters improved as soon as the necessity for early operation was recognised. The same considerations apply in the case of this form of pyloric obstruction. After all, the condition is but a form of intestinal obstruction, and it may be nearly complete. It will not get well of itself, if at all marked. It will lead to early death in many instances, and even if ameliorated by medical measures, by gastric lavage and so forth, it is practically certain that the condition will persist.

It must be kept in mind that improvement does not follow always—indeed, seldom follows—immediately on operation. Rectal feeding may be necessary for some hours after operation, and the life of a greatly reduced and emaciated child, that has been suffering from constant vomiting, is very precarious when it depends for its nutrition on what it can absorb by the rectum.

Although it is, perhaps, premature to assert as an established fact that the condition, if present in a mild form, may persist through life, yet a sufficient number of cases are now on record to render it practically certain that such is the case.

It has been found necessary to operate on cases of hypertrophic stenosis of the pylorus at all ages, and the probability that most of these were really of congenital origin amounts almost to a certainty. Some authors—Hemmeter, *e. g.**—hold the view that these cases not occurring in infancy are the result merely of chronic gastritis. Without denying altogether that this may be the case, I feel quite sure that in most of the cases referred to in Hemmeter's book the chronic gastritis was a secondary symptom, and that many at least of the instances referred to in his remarks on non-malignant stenosis of the pylorus were essentially cases of a milder type of congenital hypertrophic stenosis. Plate x in Hemmeter's work shows a section of part of the stomach and duodenum from a case described as "Hypertrophic Stenosis of the Pylorus from Chronic (stenosing) Gastritis." The section appears from the text to be from an adult stomach. The resemblance to the condition that may be found in infants only ten or twelve weeks old is very striking. Reference to the illustrations that will be found in vol. lxxxvi of the 'Med.-Chir. Trans.,' accompanying the paper already quoted, will show the similarity at once. Proportionately, the amount of muscular tissue is the same. The chief difference lies in the amount of thickening in the submucous layer in Hemmeter's figured case. Dr. John Thomson

* 'Diseases of the Stomach,' by John C. Hemmeter, 2nd edit., p. 617.

has seen similar thickening in cases of congenital hypertrophic stenosis. To my mind the condition figured in Hemmeter's book may well have existed from birth. If this be so, the arguments in favour of early operation become exceedingly strong. The lifelong troubles that some of these patients have to endure might, there is every reason to think, have been obviated by early operation. At the same time I fully allow that as yet we do not know enough of the after-history of cases operated on in infancy to justify us in assuming positively that a permanent cure can be effected. The first recorded instance that I have been able to find of an operation done for congenital hypertrophic stenosis in infancy dates only from four years ago.

That the operation at a very early age is more difficult must not deter us from operating. The youngest patient on whom I have operated so far was thirty-four days old. In this case there was strongly marked hypertrophy of the circular muscles about the pylorus, but the child was still in good condition. The vomiting in this fourth case did not cease entirely for some days after operation, but then the child began to improve very rapidly. It is worthy of note that this child was exceedingly fortunate in being under the care of a most admirable nurse. The nursing of these patients after operation is one that demands the utmost skill, judgment, and care. It is too early yet to speak positively about this patient, for the operation was only performed on October the 23rd last, but at the time of writing the child has lost all its grave symptoms, is gaining weight, and seems perfectly well and happy. Still, even in this case, in which there was prolonged constipation before operation, there are slight digestive troubles which require watching.

I am still of the opinion, from the four cases that I have had, that pyloroplasty is the best operation that can be performed. The difficulties of this operation appear to me to be quite theoretical, and the experience at any rate of four cases, all of which have recovered, appears to me to give a flat denial to the views of those authors—and they are by no means few in number—who argue that the operation is altogether impracticable.

Elsewhere I have urged that dilatation of the pylorus or pyloroplasty are the best operations, and I am still of the same opinion, with a decided preference for the latter method. Gastro-enterostomy—an operation of immense value that has been rather indiscriminately employed of late—is a proceeding so much in favour at present that it would be strange if it had not been advocated as a treatment in congenital hypertrophic stenosis. Gastro-enterostomy has, indeed,

been spoken of as an ideal operation for the condition. The epithet seems rather strained when we reflect that it leaves untouched the essential cause of the trouble, a cause too, that, as I have furnished evidence for believing, will persist. To my mind gastro-enterostomy, as applied to these patients, is but a palliative makeshift. Bearing in mind the nature of the affection, it is surely better and certainly more scientific to deal with the part really at fault. That the condition of the pylorus can be remedied directly and efficiently there are now recorded cases enough to prove.

INTUSSUSCEPTION AND HENOC'S PURPURA.

By G. A. SUTHERLAND, M.D., F.R.C.P.,

Physician to the Puddington Green Children's Hospital, and Assistant Physician to the North-West London Hospital.

HENOC'S purpura is a clinical variety of purpura hæmorrhagica which merits more attention than is usually paid to it. The affection runs a somewhat prolonged course, but commences suddenly without obvious cause or antecedent illness. It is characterised by recurrent attacks of hæmorrhage in the skin, the stomach, the intestines, and the kidneys; by severe colicky pains; by vomiting and diarrhœa; and sometimes by pains in the back, limbs, and joints. It terminates usually in recovery, rarely in death.

The symptoms affecting the alimentary tract to which I wish more particularly to refer are always of a marked character. The abdominal pain is severe, of a colicky nature, and is referred to the umbilical, the epigastric, or the right inguinal region. The patient cries out, tosses about, presses his hand on the abdomen, or presses the abdomen on the bed. Sickness soon follows, of an exhausting nature, and frequently the vomited material is blood-stained or consists of pure blood. The tongue rapidly becomes coated, the breath is offensive, and all appetite is entirely lost. At first constipation is marked, but in a few days, with or without the employment of aperient medicine, diarrhœa sets in, the motions are offensive and blood-stained, and soon pure blood is passed, it may be in large quantity, from the bowel. The act of vomiting, or an evacuation of the bowels, seems to give temporary relief to the abdominal pain. The abdomen is usually retracted, tenderness may be present on pres-

sure over the region of the colon, especially if tenesmus is a marked feature, as sometimes happens; but as a rule there is nothing abnormal to be detected on physical examination. Such an attack may last for a few hours or a few days, and then there is a gradual remission of the symptoms until the next attack. The following two cases illustrate certain unusual conditions.

CASE 1.—A boy aged 5 years was admitted into hospital on October the 10th, 1903, with the following history. Eight days previously he had been seized with severe abdominal pain and vomiting. The pain was so severe that he screamed out frequently. The symptoms continued intermittently for four days and then passed off entirely, but only to recur two days later in a more persistent manner. The bowels had acted irregularly until the day before admission, when the motions were at first blood-stained, and later only pure blood in large quantity was passed. The sickness had ceased, but the abdominal pain was constant. There was nothing of importance in the family history, and the boy himself had presented no signs of illness before this attack. On admission his temperature was 98.8°F ., the pulse 110, and the respiration 26 per minute. The boy looked ill and was suffering from almost constant attacks of abdominal pain, colicky in character, during which he threw himself about, or sat up in bed with his knees drawn up, or lay face downwards, pressing his abdomen on the bed. He referred the pain to the umbilical region. The abdomen was distended, the distension being most marked in the upper half. It was so resistant that examination was impossible without an anaesthetic. This was administered, and a careful examination failed to reveal any source of the pain. A rectal examination gave a negative result, but the finger on removal was found to be blood-stained. Five minims of laudanum were given for the relief of the pain. For the above notes I am indebted to Mr. Riley, the house-physician. I saw the patient on the following afternoon. He had not been sick since admission, nor had the bowels acted. The abdomen was more distended, and palpation was impossible. The pain had been relieved temporarily by the opium, but had recurred. After consultation with Mr. Murray it was decided to operate, as the symptoms indicated abdominal obstruction, most probably from intussusception. On opening the abdomen in the usual way the first thing to attract notice was enormously distended bowel, which passed upwards from the left iliac fossa underneath the ribs on the left side and partly across the abdomen. This proved to be the sigmoid flexure and part of the descending

colon. The cause of this distension was not very clear, and it may have been from a volvulus or paralytic in origin. The transverse and descending colon was rather collapsed. On going over the small intestine a part of the bowel about five inches long was found, which was dark in colour, evidently from extravasated blood, and with thickened walls. Separated about half an inch from this was a circular band of red colour, evidently a more recent hæmorrhage into the wall of the gut. Mr. Murray described the dark thickened portion of bowel as feeling exactly like an intussusception which had been reduced, and we had little doubt at the time that this reduction had taken place during the manipulation. There were no other hæmorrhages visible about the bowel; the mesenteric vessels were normal in appearance, and no further area of disease was discovered. During the night following the operation the patient complained at intervals of the abdominal pain, but it seemed less severe. The bowels acted three times, the motions being loose and offensive. For the next five days the boy's condition was fairly satisfactory; he had occasional pain, but it was seldom severe; the bowels acted regularly, the motions usually being offensive; there was sometimes blood in the motions, but only once of any amount; the abdomen was retracted and the wound looked healthy. Although the temperature was sub-normal, the pulse-rate continued rapid, 120 to 130 per minute, and was very weak, while the tongue was inflamed and coated. Then the condition changed. Blood and mucus were passed in large quantity from the bowel, sometimes dark in colour, sometimes bright, and soon the hæmorrhage was continuous, the boy apparently losing all rectal control. He vomited occasionally, but did not appear to suffer much pain. There were now visible for the first time a few purpuric spots, brownish in colour, over the extensor surfaces of the knees and elbows. On the following day fresh spots appeared over the buttocks, the heels, the back of the neck, the ears, and the inside of the nose. The appearance of this purpuric eruption had been anxiously looked for in order to settle the diagnosis we had provisionally made of Henoch's purpura. For the purpose of this paper the further progress of the patient need not be given in full. There have been the usual relapses characterised by vomiting, purpura, melaena, abdominal pain (slight), and extreme lethargy; the knee-jerks have almost entirely disappeared; the boy has wasted rapidly during an attack, and has gained again rapidly in the intervals. Albumen has appeared in the urine, but without blood or casts. There have been no arthritic symptoms throughout his illness. He is now convalescent and has gone to the country.

CASE 2.*—A girl aged 7 years was admitted into hospital in February, 1893, suffering from Henoch's purpura. The illness had commenced five weeks previously, when she returned from school one afternoon complaining of pain in the stomach, became sick, and vomited blood. She had a prolonged illness in the hospital, characterised by recurrent attacks of abdominal pain, vomiting of blood, melæna, bleeding from the nose and gums, purpuric eruption, albuminuria, and hæmaturia, but finally recovered and was discharged in May. In August she was readmitted with a history of a recurrence of all the symptoms a month previously. The abdominal pain was more severe, was referred to the umbilicus, and was spasmodic and colicky in character. Frequent small doses of morphia were required to relieve the patient's sufferings. The abdomen was soft and flaccid, and could be thoroughly palpated; but no localised thickening or tenderness could be detected. Sometimes the examination would be interrupted by an attack of colicky pain, which lasted a few minutes and then passed off. The child had attacks of bleeding from various organs similar to those already referred to. On September the 6th tenesmus became a marked symptom, and continued irregularly for some days. This was accompanied by the passage of blood from the bowel in larger quantities than before, the amount on one occasion being six ounces. Thirst and sickness were prominent symptoms, but there was no obstruction of the bowels, the motions being frequent, loose, and offensive. On the evening of the 19th a general convulsive seizure occurred, and the temperature rose to 104° F. The fit lasted for three hours, the patient was quite unconscious, and blood was passed by the bowel. The illness terminated fatally three days later, and during this period the girl remained in an almost comatose condition, the urine and fæces being passed involuntarily. At the moment of death vomiting took place, the matter ejected being stercoraceous in character.

At the necropsy, on opening the peritoneal cavity some foul gas escaped. The whole of the peritoneum was covered with pus and lymph, and some five ounces of pus were lying free in the cavity of the pelvis. The small intestine was distended, and the lower bowel was collapsed and empty, with the exception of the rectum, which contained fæces. At the caecal region there was an intussusception, the cæcum and part of the ileum being invaginated into the colon for about four inches. The containing and the contained bowel formed an adherent mass, and in reducing the intussusception the bowel ruptured in several places. The whole of the intestine

* Recorded in full in 'Pediatrics,' November the 2nd, 1896.

involved was much thickened, black, hæmorrhagic, and gangrenous in appearance. The wall of the rest of the colon was normal in appearance, save for a number of small, superficial, clean-cut ulcers on the mucous surface, without any local thickening, but with a leash of congested blood-vessels surrounding each ulcer on the peritoneal surface.

The condition of suppurative peritonitis and a ruptured intussusception was probably produced in the following manner:—The fatal attack was introduced by hæmorrhage into the wall of the colon near the cæcum, leading to paralysis in the affected part, and to increased muscular contraction (with colic) in the adjoining part of the intestine. As a result of these strong muscular contractions the sound part of the intestine became invaginated into the paralysed and hæmorrhagic portion, a condition which was marked clinically by the onset of severe tenesmus. The obstruction in the bowel was not complete, as evidenced by the passage of feces; but the circulation in the intestinal wall was interfered with to such an extent that first of all gangrene and later rupture of the bowel took place, an occurrence which was marked clinically by a convulsive seizure, and was followed by suppurative peritonitis and death.

It is rather a curious fact that in the first of these cases I should have diagnosed an intussusception which did not exist, and in the second should have failed to diagnose an intussusception which was present. I frankly admit the mistakes, and the best amends I can make is to record them, so that others may be prevented from falling into similar errors. It will appear from the above notes that intussusception may occur in the course of Henoch's purpura, and the mechanism of its production, as already described, seems sufficiently clear. Perhaps the most important symptom indicating the occurrence of this complication is tenesmus, severe and more or less constant. When an attack of Henoch's purpura sets in with vomiting, abdominal pain, and constipation, as in Case 1, the problem is more difficult. There was no trace of purpura about the skin, and there was marked abdominal distension, such as is not usually present in the abdominal crises of Henoch's purpura. As far as my own reading goes, such an onset, without any visible purpuric lesions, and with abdominal distension, is unique. Looking back on the case now, I think it would have been difficult to have made a definite diagnosis of Henoch's purpura at once, but the proper course would have been to have waited a little time, relieving the intestinal spasm by means of opiates.

The information gained from an ocular examination of the condition of the bowel may be of value, as comparatively few have seen the visceral lesions in Henoch's purpura. The purpura may take the following forms:—(1) Small petechiæ on the visceral peritoneum; (2) petechiæ on the mucous surface, which becomes necrotic and small ulcers form, which may lead to intestinal hæmorrhage; and (3) hæmorrhage into the wall of the bowel, which becomes thickened and inactive, the result being severe griping pain, and possibly intussusception.

A CASE OF HENOC'H'S PURPURA IN WHICH A LAPAROTOMY WAS PERFORMED.

By HAROLD BURROWS, M.B., F.R.C.S.,

Assistant Surgeon to the Bolingbroke Hospital.

THE patient, a boy aged 11 years, was sent to the Bolingbroke Hospital on July the 6th, with a note from his doctor. The note stated that the boy was suffering from fecal vomiting, that he was passing blood by the bowel, and that he probably had an intussusception.

The history obtained from the mother was to the effect that the boy had been feeling "out of sorts" for about the last ten days. On the morning of July the 6th he was seized with violent pain in the abdomen, and shortly afterwards passed a formed motion with about a tablespoonful of blood, and was sick, the vomit being dark brown and smelling just like a motion. The doctor saw the vomit and says it was fecal in character. He ordered the patient to be removed at once to the hospital.

On seeing the patient in the ward I found him to be pale, with an "abdominal" expression, and constantly moaning with pain which appeared to be intense, and which was mainly localised to the epigastrium. His tongue was brown, his lips and gums covered with sordes, and his breath peculiarly offensive. There was a swelling over the left lower jaw due to a carious molar. The pulse was 110, of fair volume—not of the abdominal type. Nothing abnormal was found in the heart or lungs. The abdomen was nearly motionless and the muscles were rigid, especially in the lower part, and there was general tenderness to palpation all over the abdomen. There

was no distension. No lump was palpable. Rectal examination revealed no tumour, but there was tenderness in the recto-vesical fold. There was no tenesmus. In trying to make a diagnosis two things seemed pretty clear to my mind: (1) that there had been faecal vomiting; (2) that there was peritonitis. Although the patient had not vomited during the short time he had been in the hospital, I believed at the time, and am still of the same opinion, that there had been stercoraceous vomiting, because the mother's description pointed to this conclusion, the doctor had seen the vomit and declared it to be stercoraceous, while the appearance of the patient's tongue and mouth, together with the odour of his breath, seemed to place the question beyond doubt. Assuming, therefore, the faecal vomiting to be a fact, I concluded that some obstruction of the bowel was present, in spite of the absence of abdominal distension. With regard to the diagnosis of peritonitis, there were rigidity and tenderness of the abdomen, and tenderness of the recto-vesical fold of peritoneum, as shown by rectal examination; while the severe pain and the expression of the boy's face lent countenance to the diagnosis. The fact that the pulse was not of the abdominal type, as also the cessation of the vomiting, I thought might be due to opium having been administered previous to the patient's admission. Reasoning on these lines, the two most likely possibilities appeared to be intussusception, or obstruction due to some inflammatory condition, perhaps in the region of the appendix. Of the two alternatives I was rather in favour of the latter, on account of the early appearance of signs of peritonitis.

I advised that the patient should be examined under chloroform, and that, if it were still thought necessary, an exploratory laparotomy should be performed. Accordingly he was anaesthetised. Under a moderate degree of anaesthesia the abdominal rigidity did not pass away, and no fresh light was thrown upon the nature or situation of the lesion present. A median incision was made below the umbilicus sufficient to admit two fingers. The peritoneum appeared to be healthy, the caecum was not distended, the appendix was inspected and found to be normal, and no lumps or other abnormalities were discovered. So far as could be seen, the greater part of the small intestine was pale and nearly empty. Just as the abdominal incision was about to be sutured, however, a portion of congested small intestine was seen. On examining this it was found to be ileum a few inches from the ileo-caecal valve. The bowel showed several small petechial haemorrhages and some irregular patches of congestion from which the blood could be expressed. Over the congested

areas the peritoneum was sticky and had lost its gloss. No further investigation was made. The abdominal wound was sutured and the patient returned to bed, the carious molar being extracted before he recovered from the anaesthesia. Pus escaped from the socket.

On the following morning the patient was free from pain. A careful search was then made for other petechiae, and it was found that there were some small purpuric spots on the backs of the elbows, on the buttocks, and on each leg over the tendo Achillis and heel. The urine was acid and showed excess of phosphates, with a faint trace albumen. The tongue was still very foul. The temperature was 99.6° F., and the pulse 110. The petechial haemorrhages seen at the operation at first suggested the presence of a general septic infection connected with the dental abscess; but the temperature during the next few days was only slightly raised above the normal, and the patient did not seem sufficiently ill to justify the opinion. Within a few days there was a general eruption of purpura, and for the first time the possibility of the case being one of Henoch's purpura was considered. Dr. Goodhart very kindly saw the patient and confirmed the diagnosis of Henoch's purpura; at the same time he suggested that a more precise history of the illness should be obtained. The mother was therefore sent for and questioned further on the matter. She now stated that on June the 26th, eleven days before his admission to hospital, she had noticed her son to be walking lame. He explained this by saying his legs ached and felt stiff. His mother examined the legs and found them covered with bumps and red spots. She also found a rash on his elbows and buttocks. The boy said he felt quite well. On the following day the rash faded, and on the day after the patient went to Sunday school as usual. On the 30th a rash appeared all over his body, and he said he did not feel well. He also complained of toothache. Had this history been obtained earlier the patient would in all probability have been spared a useless laparotomy.

The history subsequent to the operation is interesting. The breath remained foul and the tongue coated throughout the patient's stay in hospital; and on every occasion on which it was tested the urine contained excess of phosphates, with a faint cloud of albumen on boiling and adding a few drops of dilute acetic acid. The appetite was always very poor, and there was a good deal of wasting. The faeces were pale, offensive, and usually not formed; although no complete examination of them was made, they showed, I think, that digestion was not being efficiently performed. There were frequent eruptions of purpuric spots, sometimes confined to the elbows and

buttocks, and at others distributed generally. No retinal hemorrhages were observed. On July the 25th, after eating some chocolate, the patient had a sudden severe attack of abdominal pain, and passed shortly afterwards about $1\frac{1}{2}$ ounces of blood by the rectum. He had the appearance of one who was suffering from a serious abdominal lesion. The pain was intense; 15 minims of tincture of opium given *per rectum* brought some relief. Three days after this attack there was a general eruption of purpura. The last occasion on which a general rash appeared was on August the 11th, and four days after this the patient was sent away to the sea-side. On November the 2nd he was again seen; he had become fat, had a good colour, and looked altogether the picture of health. There had been no more purpura since he left the hospital. An examination of the urine, however, showed the presence of albumen to the amount of 0.1 per cent., a good deal more than there had been at any time while he was an in-patient.

In placing this case on record I have been moved by the hope that it may serve to call attention to the surgical importance of Henoch's purpura. I do not remember to have seen any mention of the subject in a text-book of surgery, and yet my own case is not the only one where an unnecessary operation has been performed on a patient suffering from Henoch's purpura. In most recorded instances of this condition there has been a history of purpura for some days or weeks previous to the abdominal symptoms, and therefore in a doubtful case a careful inquiry should always be made with regard to this point. The absence of abdominal distension in my case would have led me to delay operating had there not been evidence of peritonitis. The latter symptom, in conjunction with the patient's age, induced me to advise immediate operation. With regard to the fecal vomiting, it may be doubted whether this really did occur. For my part I believe it did, and it is interesting in this connection to read a recent report of a somewhat similar case in which stercoraceous vomiting is said to have occurred in the course of Henoch's purpura. The actual lesion giving rise to the abdominal symptoms I believe to be a hemorrhage into the wall of the gut, and it is quite conceivable that such an accident might lead to a temporary blocking of the bowel, or might even set up reverse peristalsis.

Looking back on my case now as a complete clinical picture, I feel sure that had I taken the possibility of it being one of Henoch's purpura into consideration, and inquired more fully into the history of the illness, the patient would have been saved from an uncalled-for laparotomy.

ADMINISTRATIVE NOTES ON CHILDREN'S HOSPITALS.

By T. GLENTON-KERR,

*Secretary of the North-Eastern Hospital for Children, Hackney Road,
Bethnal Green, E.*

UNDER this heading it is proposed to discuss, month by month, such matters relating to the management of, and policy adopted by, the children's hospitals as may be of interest to the medical profession.

There are, indeed, so many points of contact between the lay and the medical departments that few questions concerning hospitals will be found to be quite outside this definition of the scope of our notes.

The subject seems naturally to divide itself under two main headings, viz. :

1. Matters relating to internal management and administration, and

2. Questions of policy and principle.

I propose to commence with a subject that falls under the latter division, viz. the question of the co-operation of the children's hospitals of London with the members of the medical profession practising in their vicinity. I must ask provincial and colonial readers to bear with me while discussion is thus confined, promising that due attention shall be given to the institutions in other places on future occasions.

That the condition of affairs in London is as unsatisfactory as it well could be, no medical man outside the staffs of the various hospitals will, I take it, be found to deny. A state of war has existed for half a century, and still continues to drag wearily on. Why should this be ?

I am told by my medical friends that when the cause of disease can be discovered, no difficulty is presented in its prevention or cure. Well, then, let us endeavour to discover the etiology of this ill-feeling.

As usual in such cases, there are serious faults on both sides. In the hospitals disparaging remarks are too often made by indiscreet resident medicos within the hearing of the patients' parents or friends as to the professional abilities of Dr. So-and-so, who, it may transpire, has had some case under treatment that has at length come to the hospital in a bad condition. These remarks (with additions) are tolerably sure to reach the ears of Dr. So-and-so in due course, and are quoted as the opinion of *him* entertained at the "orspital."

This is very deplorable, and can only be remedied by the constant exercise of influence brought to bear on the residents by the visiting staff, and by the enforcement of certain rules which could be suggested.

Then, the committees of the hospitals are much to blame for the attitude of absolute indifference to the interests of the local general practitioner which they commonly adopt in regard to what may be called the financial suitability of patients. In most cases some sort of inquiry is made as to the monetary position of parents, but with one sole exception this is of a very casual nature, and offers no guarantee that cases well able to pay a doctor are not included in considerable numbers amongst the daily out-patients.

The committees' aim, as a general rule, does not go beyond satisfying the authorities of the various public charitable funds as regards out-patient abuse, and announcing the treatment of as large a number of cases as possible. Committees fail to realise that, rightly understood, the interests of the hospitals (and I now speak of hospitals in general) are bound up with those of the general practitioners, and that if a feeling of good-fellowship could be established between the two forces the problem of financial support would not present such serious difficulties as it does at present.

It should not require much thought upon the subject to understand that if you could substitute a feeling of sympathy and goodwill for one of indifference or antagonism in a large body of highly educated men, exercising wide-spread influence upon the public, a great change for the better must necessarily be brought about in the flow of contributions to the coffers of the hospitals; and it is on this fact that we must rely for eventually leading the committees to seriously grapple with the problem.

So much for the faults on the hospital side.

With regard to the blame to be attached to the general practitioner, I should explain that my remarks refer more particularly to the poorer districts of London, and do not apply to any great extent to the well-to-do suburbs or the rich "West End," where the competition of the hospitals is scarcely felt.

The general practitioner is to blame for the attitude of unreasoning hostility, varied by a sort of malignant indifference, which he usually adopts towards the children's hospitals. He does not scruple to make use of them for the treatment of such cases as it may suit his convenience to send to them, and he knows from experience that a polite note from him is usually sufficient to secure for his patient admission to the wards.

So far he is treated well by the hospitals, and ought to make

acknowledgment of the fact. He is usually an extremist in his views on the abuse question, and refuses to be satisfied with anything short of the introduction of a law forbidding hospitals to treat anyone without a written recommendation from a medical man practising in the patient's neighbourhood. He is often eloquent upon the subject of mistakes in diagnosis and treatment made by hospitals, and on the deleterious effects to the health of patients which he alleges result from visits to the obnoxious institution that appears to trench more especially on his ground. This virulent form of criticism may have been provoked in some cases by the dissemination of stories of unguarded remarks on himself, such as I have previously mentioned; and under those circumstances, perhaps, we ought not to be altogether surprised at his antagonism; but still I think even then he carries his hostility too far, and might have been expected to take a larger view of the matter generally.

As far as I can see there is no other cause for the existing ill-feeling on either side than those I have mentioned above, and if this is really so there does not seem to me to be any good reason why a truce should not be forthwith declared and a peace eventually arrived at, to the lasting benefit of all concerned.

I am afraid many readers will regard this idea (which, of course, is anything but new) as something to be thought on in conjunction with the "Parliament of Man—the federation of the world," and if such there be I must hope to convert them when through the indulgence of a kindly editor I am granted space in this magazine for the discussion of the first practical steps that should, in my humble opinion, be taken in the path of reform which I have ventured to indicate.

The Society for the Study of Disease in Children.

A MEETING of the Society was held on November the 20th, at 11, Chandos Street, Cavendish Square, W., Dr. H. R. HUTTON (Manchester) in the chair.

An Anomalous Case of Diplegia was shown by Dr. JAMES TAYLOR. A child of four years, soon after an operation for an abscess on the right side of the neck, became altered mentally and lost the power of walking. Additional symptoms found on examination were—

occasional regurgitation of fluids through the nose, squinting, absence of knee-jerks, and marked inco-ordination. Most of the symptoms had passed off under treatment, but the degree of intelligence was not yet quite up to the normal standard. The diagnosis made at first was one of diphtheritic paralysis, although there was no history of sore throat. He was now inclined to look on the condition as some other form of toxæmia, which had led to alterations in the cerebral cortex.

Dr. SHUTTLEWORTH had never seen mental deterioration follow immediately on diphtheria, but he recalled one case in which an attack of diphtheritic paralysis was said to be the precursor of mental impairment. In the present case he thought that some previous mental weakness had been aggravated by the acute illness.

Dr. FLETCHER BEACH regarded the case as one of cerebral diplegia rather than diphtheritic paralysis.

A Case of Multiple Subcutaneous Tuberculous Nodules in a child eighteen months old was shown by Mr. FRANCIS JAFFREY. The history of the case was that these nodules first appeared when the child was vaccinated at the age of three months. Several of the nodules had softened and burst. He found that vaccination was usually assigned as the cause of these nodules by mothers, and therefore advised the postponement of vaccination if any nodules were present.

Dr. CHARLES W. CHAPMAN had had a case of similar nodules in an adult which was completely cured by the internal administration of iodoform.

Dr. CAUTLEY recalled a case in a baby ten months old, who died ten weeks later from tuberculous meningitis. At the autopsy four caseating nodules were found in the brain, also caseous glands in the mesentery and mediastinum, and miliary tuberculosis of the lungs.

Mr. LOCKHART MUMMERY suggested the excision of one of the nodules to determine whether it was a pure tuberculous affection or a mixed one.

Dr. ERIC PRITCHARD had seen a case in a lady which had lasted for two years, and was finally cured by arsenic.

Twin Sisters, with Idioglossia aged 5 years, were shown by Dr. G. A. SUTHERLAND.

Dr. LEONARD GUTHRIE remarked on the strong family likeness which such cases showed, although the particular defects were not the same. He thought that in many cases there was defective visual memory, because if the child looked away from the speaker's

mouth it forgot how to form the words. The prognosis might appear to be hopeful, but he found a tendency to falling back if very careful and constant supervision were not maintained.

Dr. PARKES WEBER referred to a case under his own care where idioglossia had followed on brain disease in early life. He thought that certainly the motor centres had been affected, and that there was defective cerebral development in his case. There had been very little improvement.

Dr. HENRY ASHBY (Manchester) did not like the word idioglossia, and preferred to describe the condition simply as defective speech. Such a condition was common in the special schools for backward children. He thought that one factor which was present was want of attention, and that this was coupled with a certain amount of mental backwardness. He would, therefore, assume some fault in the motor speech centre, combined probably with a defect higher up. The motor centre was such an extremely complicated mechanism that it was not surprising if it sometimes went wrong.

Dr. SHUTTLEWORTH agreed with the last speaker as to the frequency of speech defects in backward children. There was an element of laziness about the condition.

The PRESIDENT (Dr. Hutton) (Manchester) thought that the trouble was due to defective hearing and defective observation, coupled with a general lack of energy. The parents of such children were often of a somewhat low degree of intelligence, and therefore did not give to the children the proper amount of attention.

A Case of Premature Greyness of the Hair in a female child eleven years old was shown by Dr. GEORGE CARPENTER. The condition was not inherited, and she was in other respects a perfectly healthy child.

A Case of General Paralysis of the Insane in a girl eleven years old was also exhibited by Dr. CARPENTER. The symptoms dated back more than a year. Most of the day she talked incoherent nonsense, and was placid and fatuous; at other times she had screaming and weeping fits which lasted for a few hours. There was slight spasticity of the lower limbs, and the deep reflexes were increased. She had typical syphilitic teeth, pale optic discs, and a patch of choroiditis in one eye.

Dr. FLETCHER BEACH had collected notes of 200 cases of this affection, and in the majority of these syphilis was present. In children general paralysis usually developed at the time of the second dentition, and there were no delusions of grandeur such as were met

with in the adult type, but simply screaming and emotional disturbances.

Dr. JAMES TAYLOR said that in his experience such cases commenced with gradual dementia and had associated fits, tremors, inactive pupils, and excessive or absent knee-jerks. In the majority there was the definite association with hereditary syphilis. The physical conditions in children were the same as in adults, but the mental conditions were different—namely, simple dementia in the former without delusions of grandeur.

A Case of Extensive Impetigo Contagiosa Bullosa in a child of three years, which bore a superficial resemblance to psoriasis, was also shown by Dr. CARPENTER.

Mr. PERNET expressed the opinion that it was really psoriasis.

Three Cases of Sarcoma which had been operated on by Mr. DOUGLAS DREW were described: (1) a spindle-celled sarcoma of the muscles of the back of the forearm; (2) an adeno-sarcoma of the testis; and (3) a round-celled sarcoma of the upper jaw.

A Case of Congenital Heart Disease with Dysphagia was shown by Dr. ERIC PRITCHARD in an infant of five months. The difficulty in swallowing appeared to be due to inco-ordination of the muscles of deglutition. The child was gradually sinking into a marasmic condition, although the cardiac murmur was diminishing.

Dr. SUTHERLAND had not met with the association of dysphagia with congenital cardiac disease, but agreed that dysphagia in infants was usually due to imperfect co-ordination, and said that time usually cured the condition.

An Unusual Case of Congenital Hypertrophic Stenosis of the Pylorus was brought before the Society by Dr. EDMUND CAUTLEY. The patient died at the age of fourteen weeks, and the pylorus presented the usual characteristics, but both small and large intestines contained a considerable quantity of normal faeces. While under observation he had gained thirteen ounces in weight during one period of two weeks, and six ounces during another period of one week. During life peristalsis was noted on one occasion only; the pylorus was palpable, the stomach was moderately dilated, and vomiting was present, but was not characteristic. There was not marked constipation, and even eight days before death a large and almost normal stool was passed. Dr. Cautley pointed out the difficulties of diagnosis in a case of this nature, and thought that many such were overlooked. Operation might have saved

the child's life, but the case was regarded as a somewhat mild form of the condition, and later on acute diarrhœa rendered operative interference inadvisable. He thought that the absence of characteristic vomiting in this instance might be urged as an argument against the view that the hypertrophy was due to spasm.*

Two Cases of the same Disease which had been successfully treated by pyloroplasty were read by Mr. CLINTON DEXT.*

A Case of Hypertrophic Stenosis of the stomach of a child two months old, which had been diagnosed and for which the patient had been admitted for operation, was shown by Dr. ALEXANDER MORISON. While under observation the patient vomited very little, and only occasionally exhibited gastric peristalsis. Operation was deferred and the patient was discharged, but returned five days later in a collapsed condition, with a temperature of 90° F., and died soon afterwards. At the necropsy the pylorus was found to be large, long, and hard. The stomach, inflated with air, only required the cardiac end to be ligatured to remain inflated, as the pyloric end was impervious. Dr. Morison dwelt on the necessity for operation in such cases, even when the condition was merely suspected to exist.

Mr. HOWELL EVANS said that with congenital hypertrophy there might be a marked degree of spasm, which when aggravated by irritation, as from ill-digested food, would lead to dilation. He narrated a case on which he had been called to operate, but the patient became so collapsed that he was not able even to find out the condition of the pylorus.

Mr. TURTLE had seen five cases operated on by dilation of the pylorus during the last twelve months, all of whom had recovered. Three of the cases returned later with diarrhœa of a very troublesome nature. He suggested that this might have been due to overstretching of the pylorus, so that it was unable to retain the food in the stomach sufficiently long for digestion.

Editorial.

ETIOLOGY OF THE VISCERAL CRISES IN HENOC'S PURPURA.

THE etiology of the abdominal symptoms—severe colic, vomiting, hæmatemesis, and mæna—which sometimes occur in the course of

* This paper appears in full in this present issue.

purpura hæmorrhagica has, until recently, been a matter of conjecture only.

The first case on record in which visceral crises occurred was supplied more than a hundred years ago by Willan (1). It was that of a lady aged 36, who, on June the 17th, 1792, after suffering a few days from painful inflation of the stomach, was suddenly seized with violent and almost incessant vomiting, accompanied by excruciating pains in the bowels and profuse diarrhœa, with the passage of black coagulated blood. The symptoms culminated in collapse, marked by languor, faintness, sweating, slowness of pulse, on the night of June the 25th, when a rash appeared, consisting of small circular patches confluent on the neck, and shoulders, and nates, but in other places distinct. On June the 27th the rash was of livid colour; the hands swelled, but the internal pain and discharge of blood ceased. On the 29th and 30th there was much pain in the limbs, particularly about the knee-joints, but she was in better spirits. On July the 1st and 2nd she was sick, weary, and restless, but there was no disorder of the bowels. The tongue was brownish and clammy, and there was considerable pain in the wrists. The rash began to fade on July the 3rd, and on the 4th livid spots were confined to the arms only, and the patient was able to sit up in bed. Two spots on the back of the left hand terminated with gangrenous sloughs. The complaint was succeeded by "large anasarcons swellings of the thighs and hands," which were not reduced till the end of August, and during that time she remained in a weak, irritable state.

Willan made no comment as to the causation of this typical case of what is now known as Henoch's purpura. Neither did Henoch, who, in 1874 (2), was the next to draw our attention to the visceral complications in purpura, throw light upon their etiology. Couty (3), in 1876, attributed them to an irritative lesion of the sympathetic system, comparable, to some extent, to that seen in lead-poisoning.

In 1890 von Dusch and A. Hoche (4) collected forty-four cases of Henoch's purpura, and discussed the causation of the abdominal symptoms. They suggested that they might be due to small embolisms of the intestinal arteries, but concluded that nothing certain was known about it. "Wir wissen nichts Genaues."

Vierhuff (5) in 1893, related the case of an adult, who, in the course of an attack of purpura hæmorrhagica with intestinal hæmorrhage, developed all the signs of intussusception. Treatment failed in removing the intussusception, but the patient recovered after passing the affected portion of bowel, which had separated in course of time. From this case Vierhuff inferred that he had found in

purpura hæmorrhagica a new cause of intussusception, and assumed that a hæmorrhage had occurred in a part of the bowel, leading to paralysis and dilatation, and consequent invagination of the upper healthy and contracting segment of bowel.

A somewhat similar case, ending fatally, had been recorded by W. Milligan (6) in 1888.

In 1896 Dr. G. A. Sutherland (7) published a series of three typical instances of Henoch's purpura, one of which was fatal. After death purulent peritonitis was discovered, and also the existence of an intussusception at the ileo-cæcal valve. The part of the intestine involved was empty, the walls much thickened, black, hæmorrhagic, and gangrenous. A number of small, superficial, clean-cut ulcers were on the mucous surface of the colon, without any local thickening, but with a leash of congested vessels surrounding each ulcer on the peritoneal surface.

Dr. Sutherland gave the same explanation of the cause of the intussusception as that arrived at by Vierhuff.

The results of the post-mortem examinations recorded in other cases threw little light on the causation of the symptoms in patients who recovered, for death was due to complications. Thus in 1864 Stieldorf (8) found general œdema, spongy and bleeding gums, ecchymosis in most organs, pneumonia, pericarditis, pleural effusion, and ascites, whilst the intestines were coloured black in places. Wagner (9), in 1869, found, after death, pulmonary infarcts, purulent peritonitis, "croupous diphtheritic membrane" upon, and ulceration of, small intestines.

Zimmermann (10), in 1874, discovered necrotic ulcers in the small intestines, with perforation and peritonitis; whilst Silbermann (11) in 1887 found acute peritonitis from perforation at the fundus of the stomach—no ulceration of the bowels, but swelling and congestion of the mucous membrane. There were also necrotic foci in the stomach and intestines, and thrombi in some of the blood-vessels.

Osler (12) said in 1895, "The anatomical conditions associated with visceral symptoms are not well understood, but the changes in the gastro-intestinal canal, at least, are probably the counterpart of those which occur in the skin—namely, exudation of serum, swelling, hæmorrhage, and in some instances necrosis."

In 1898 Sir Stephen Mackenzie (13) said, "As to the nature of such cases, the evidence is inconclusive, and whether the colic and vomiting stand in relation to the hæmorrhage from the bowels as cause or effect is uncertain. Silbermann's case, however, suggests

that hæmorrhage is the primary event, and may lead to ulceration and perforation."

In the present year, Dr. Raymond Crawford commented as follows on three cases published in the 'Lancet' (14):—"I have not hesitated to refer these crises of abdominal pain to extravasation, because of the close association of this symptom with extravasations that are visible to the eye on the surface of the skin. . . . The abdominal symptoms are such as may well be due to effusion into the wall of the gut, and in one case that I have seen, but which is not recorded, the diagnosis of acute intestinal obstruction was actually made until the appearance of the familiar symptoms cleared the picture."

The papers, therefore, by Dr. Sutherland and Mr. Harold Burrows, which are published in our present issue, are of exceptional value and interest, for they throw light on the immediate pathology of the visceral crises in Henoch's purpura, which has remained so long unexplained.

In two cases the symptoms were so severe as to render the diagnosis of intestinal obstruction plausible, and an operation justifiable. In both cases the obvious cause of the symptoms was seen by direct inspection to be extravasation of blood in the intestinal walls, which became thickened and inactive, the result being severe griping pain, melæna, and vomiting.

Clinical and post-mortem observations show that hæmorrhage into the intestinal walls may give rise to intussusception, and also that necrotic ulcers may perforate and cause death from purulent peritonitis.

It would seem that for the production of abdominal crises it is essential that the hæmorrhage should be within the intestinal walls, and not merely from the mucous surface, for melæna is extremely common in all forms of purpura without colic, and in such cases the hæmorrhage has been shown after death to proceed from petechiæ on the mucous surface only of the bowel.

The diagnosis of intussusception and consequent operation in the two cases which we publish are all the more excusable, considering that intussusception is now known to be an occasional complication of Henoch's purpura. The practical lesson seems to be that it is safe to avoid operation in cases where intussusception in the course of purpura is suspected, at all events until the symptoms become too urgent to admit of delay. Some help in the diagnosis is afforded by the fact that intussusception from any cause in children upwards of two years of age is comparatively rare, and also that Henoch's purpura usually terminates in recovery, even when signs of obstruction are present.

The remote cause of Henoch's purpura is still obscure. Most careful examinations of the blood have failed to supply a clue to the nature and origin of the disease. Yet it seems probable that bacterial toxins are generated in the intestinal canal, and break down albumens into peptones, which, becoming absorbed into the circulation, may produce poisonous effects upon the delicate capillary walls, and upon the vaso-motor nerves. Evidence of implication of the latter is instanced by the curious evanescent flushes of the skin, erythemata, taches cérébrales, and urticarial eruptions common in this affection. The absence of the knee-jerks noted by Dr. Sutherland in all his cases is in favour of the existence of a poison which, like the albumoses of diphtheritic paralysis, has selective action upon the neuronie terminals.

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Excerpta Puerilia.

The Employment of Children Act.—We often talk of the blessings of civilisation, but there may be said to be the ills of such blessings just as there are the defects of good qualities. And further, while civilisation does not spell unmixed blessing, neither does it intramelled freedom. Life continues to become more and more complicated, and legislation at the same time sets more and more a watch upon its every movement. One almost sighs for the life of the primitive community, when the man tilled the soil, the woman, aided by the girls, presided over the indoor necessities of the household, and the boys exercised a daily watch over the sheep, goats, or cattle as they fed over uncultivated uplands or on the grassy margins of brooks in the valleys. Our day is not the only day of advanced civilisation, but in all ages no small number of the men who have been distinguished in the field of action or thought—from the days of the Hebrew King who had been a shepherd boy, to Renan, the son of Breton peasants—have been born and bred in the comparative solitude of the country. If, however, it is absolutely necessary that the great bulk of the population should live in towns, it is well that we should be as much as possible upon our guard against its evils. The Employment of Children Act which comes into force on January the 1st, 1904, is directed against one of these evils. The Bill has been framed with the object of preventing injury to the health of growing children by their engaging in any work likely to be deleterious. The law forbids, firstly, the employment of children under fourteen between the hours of 9 p.m. and 6 a.m., unless the hours are altered by local authority; secondly, street trading by children under eleven; thirdly, employing a child under fourteen to lift, carry, or move anything so heavy that it is likely to cause injury; fourthly, employing a child in any capacity likely to be injurious to health or education, regard being had to the physical condition. The Bill further gives the local authority power, if they like, to make bye-laws regulating the age below which employment shall be illegal, the hours between which employment is illegal, and the number of hours daily or weekly that a child may work. The local authority also has the power of prohibiting or regulating any specific employment, including street trading. The provision which refers to street trading, refers, as might be expected, more particularly to girls.

Hungry school children.—It is undoubtedly necessary that the work of the uprising generation should be supervised, but possibly the health and vigour of future men and women of the poorer classes will depend more upon the quantity and quality of food they are eating to-day than upon the nature of their physical exertions. In the ‘Wolverhampton Express’ of December the 9th, under the heading “Give us this day our daily bread,” it is mentioned that these words are often uttered at the commencement of morning school by quivering little voices issuing from lips through which probably no food had passed that day. In one part of the town of Wolverhampton a local Society had provided thirty breakfasts once or twice a week to needy school children during the winter. Once or twice a week during the winter, however, does little more than manifest the desire to supply a need, a desire by no means confined to Wolverhampton. In the ‘Dundee Courier’ of four days previously, we read that in the town from which that paper issues the School Board has been able with the aid of the public to provide about 500 children daily with soup, which is taken with bread brought by the children from home.

Tramp children.—Another Bill apparently is to be brought before Parliament for the “better protection of tramp children.” This Bill was recently discussed before the Cuckfield Board of Guardians. One of the speakers stated that if van and barge children were excluded, the number of children being “dragged about” the country is much less than is ordinarily supposed. The speaker thought the tendency to “tramp” manifested a wide-spread peculiarity of the human mind which was not necessarily stronger in the children of tramps than in others brought up under different circumstances. He did not think that the children of tramps ultimately formed a large percentage of the vagrant population.

Nursing schools for girls.—A notice has appeared to the effect that the Women’s Industrial Council will on January the 29th hold a conference for the purpose of considering the desirability of establishing schools for training girls of the industrial class in the care of children. It is scarcely necessary to remark that nothing is so likely to diminish the annual infant mortality as the adoption of methods calculated to dispel much of the ignorance which prevails upon the care of children, especially during the first few months of life.

Child Study and School Hygiene at Folkestone.—At the Congress of the Royal Institute of Public Health to be held at Folkestone, from July the 22nd to the 27th, inclusive, there will be a SECTION FOR CHILD STUDY AND SCHOOL HYGIENE. Dr. Percy Lewis has been appointed Local Secretary, and Dr. George Carpenter London Secretary. Gentlemen desirous of contributing papers should communicate with the Local Secretary. Those anxious to attend the Congress, who are not members of the Institute, can do so by taking a delegate's ticket, price £1 1s.

Abstracts from Current Literature.

The treatment of whooping-cough.—Aristochin is a new preparation which has recently been employed in the treatment of whooping-cough by H. Kittel ('Therap. Monatshefte,' 1903, Heft 8). The dose administered to infants ranged from 0.01 g. to 0.1 g. (*i. e.* $\frac{1}{10}$ th of a grain to $1\frac{1}{2}$ grains) thrice daily. For children of over one year of age doses of up to 0.2 g. (*i. e.* 3 grains), thrice daily, were used. The drug is best administered in milk or water. Out of thirty-four cases treated in this way, twenty-five were completely cured and seven were improved; two were lost sight of before the completion of the treatment. The duration of the treated ranged from ten days to four weeks, and the writer found that, compared with the effects of other drugs, the duration of the disease is appreciably shortened under aristochin. Its action is especially striking in young infants, where cure resulted most rapidly. In older children the results were less striking—probably because the drug was not employed in sufficiently large doses. Aristochin was found to be especially valuable at the onset, when it may positively abort the disease. A point which alone would justify its use was the marked improvement of the appetite, with consequent improvement of the general condition, which was observed in every case. No injurious collateral effects were ever observed in the use of this drug. E. P. BAUMANN.

Psoriasis infantum.—Dr. Pietro Benassi ('Giornale ital. delle malattie vener. e delle pelle,' vol. xlv, 1903, p. 99) gives the following observations from the dermosyphilitic clinic at Bologna. Out of 334 cases collected only fourteen occurred before the age of 10 years, *i. e.*, 4.19 per cent.: one at 4 months, one at 1 year, one at 2 years, two at 5 years, four at 6 years, one at 7 years, and four at 8 years.

Certain differences distinguish infantile from adult psoriasis: the patches are smaller, punctate and lenticular forms predominating; it is less extensive and diffuse, and less dangerous; is complicated with moist eruptions; is less scaly, the scales being less adherent; the flexor surfaces of the trunk and limbs and the lumbo-sacral region are the parts most frequently affected; the intervals between one eruption and another are longer. These differences are caused by the special anatomical and physiological conditions of the skin. It follows vaccination, smallpox, erysipelas, and scarlatina.

T. V. DICKINSON.

The vitality of children of tabetics.—Pitres publishes (in the 'Journal de Médecine de Bordeaux,' July, 1903) some interesting observations on tabes and marriage, more especially in relation to the vitality of children of tabetics. Of 240 individuals affected with tabes, 87 per cent. were married to non-tabetics: 20 per cent. of these were sterile; 15 per cent. had on an average two children each, but two thirds were stillborn, and the other third died in infancy; the remaining 135 (65 per cent.) had 416 children, of whom 130 were stillborn or died at an early age, while 286 (2·11 per family) lived beyond childhood. The general infantile mortality was high (40·7 per cent.), but Pitres does not think it directly attributable to tabes, inasmuch as those born prior to any manifestation in their parents of spinal symptoms showed a higher mortality than those born subsequently thereto (44 per cent. : 28 per cent.). The cause of the low vitality of the offspring would appear, therefore, to be the syphilitic taint in the parent, which is a condition precedent (if not the cause) in most cases of tabes. It is somewhat surprising that the children of tabetic parentage who lived beyond childhood were, with a few exceptions (according to Pitres), mentally and physically sound.

G. E. SHUTTLEWORTH.

Steeple-shaped skull.—In the curious malformation of the skull known by the Germans as "Thurnschädel," and in this country as "Oxycephaly," it is known that optic neuritis and optic atrophy may occur, while, owing presumably to the shallowness of the orbits, there is usually protrusion of the eyes. Within the last few months two cases of the kind have been reported. The first case by H. Work Dodd and W. H. McMullen ('Lancet,' June the 13th, 1903) was in a child, aged seven years, who presented a steeple-shaped skull. This was associated with marked proptosis, post-conjunctival atrophy of the optic discs, defective hearing, congenital dislocation of the radius, hallux varus, genu valgum, and several

minor deformities of various parts of the body. The second case was by E. Donaldson ('Trans. Ophthal. Society,' vol. xxiii, 1903). Its salient features are as under:—A child of two and a half years was brought to Donaldson suffering from protrusion of the eyeballs and a steeple-shaped, oxycephalic skull. The condition was present at birth, and was thought to be non-progressive. There was horizontal nystagmus and a tendency to divergence. The optic discs were pallid, and sight was defective. The exophthalmos was so marked that on several occasions one eye became partially dislocated, and had to be replaced by the patient's father. Lastly, the great toes were broad; the palate was highly-arched; and hallux varus was present on each side.

SYDNEY STEPHENSON.

The development of colour-sense in infants.—Raehlmann ('Ophthal. Klinik,' November the 5th, 1903) has made some interesting investigations on the development of the colour-sense in children. Experiments by Preyer, Magnus, Colm and others, have tended to show that they could recognise colours at a comparatively late age only. The more recent observations of Holden and Bosse on the movements of grasping have shown that children, even so early as the sixth or seventh month, respond promptly to red, orange and yellow, while a few respond to green, blue and violet. To place coloured patterns before the children and to expect children to name them, gives, it is true, a good test of the mental development of the child and of its memory for words in naming the colours, but it is obvious that the fact of the child assigning a wrong name to a particular colour does not prove that it has failed to recognise that particular colour. In order to avoid making this mistake, Raehlmann devised and carried out the following interesting experiment. Two exactly similar feeding bottles were painted outside, the one red and the other green. One of the bottles, say the red, was filled with milk and the other was left empty. Both were offered to the child at the same time side by side. The children at first showed uncertainty in their movements, but in a short time they became able to recognise the bottle containing milk. This experiment disclosed no distinction in the degree of ease with which various colours could be discriminated; as soon as the children are capable of grasping consciously, they are able to distinguish all colours with certainty. This stage is reached by some as early as the beginning of the sixth month, and by others somewhat later.

SYDNEY STEPHENSON.

Reviews of Books on Children's Diseases.

REPORTS OF THE SOCIETY FOR THE STUDY OF DISEASE IN CHILDREN
(Edited by GEORGE CARPENTER, M.D.) Vol. iii. (J. & A. Churchill.)

IF the question were asked as to whether The Society for the Study of Disease in Children has justified its existence, a glance at the third volume of 'Transactions,' which has just been published, should serve to dissipate all doubts on the subject. The Society has, by centralising the results of workers and observers from various parts of the country, already done much to advance this important department of medicine and surgery, and the volumes which have been published year by year bear witness to the scientific value of the work which is contributed, insomuch that they express all that is most recent in the knowledge of pediatrics and in the practical application of that knowledge. They constitute an excellent text-book, which is automatically kept up to date by the annual publication of a substantial volume, containing not only the results of recent researches and clinical and pathological observations, but the criticisms also which have been elicited concerning them. As an example of this fact, we might direct attention, in the volume now before us, to the series of papers on tuberculous peritonitis which were read at a special meeting. The whole subject is dealt with very exhaustively, the etiology of the disease being discussed in an excellent article by Dr. Cautley, and this is followed by papers on the symptoms and diagnosis (in which are some most practical suggestions by Drs. Barr, George Carpenter, and J. Porter Parkinson), on the pathology and morbid anatomy (by Drs. Theodore Fisher, Chaffey, and George Carpenter), and on the prognosis and results of medical and surgical treatment (by Drs. G. A. Sutherland, James Carmichael, and Mr. Watson Cheyne). The Editor and Publication Committee are to be congratulated on having gathered together much valuable material, and on having produced a volume which is excellently printed and illustrated, and which has been most efficiently indexed.

CHARLES J. MACALISTER.

AIDS TO THE TREATMENT OF DISEASES OF CHILDREN. By JOHN McCaw, M.D. Second Edition. London: Ballière, Tindall, and Cox.

THIS little work, according to the author's preface, is a compilation designed for the benefit of students and busy general practitioners.

It is an open question whether the value of such brief treatises is commensurate with the labour spent on them by the authors. They may be useful to the student reading for an examination, or to the practitioner hurriedly looking up some point, but they will never teach any one the management of disease in childhood. When in difficulty with a restless case of pneumonia the young practitioner will naturally turn to page 114, where he will read as follows:—"For the pain in the side the following have been recommended: two leeches; a small blister; equal parts of chloroform, belladonna, and aconite liniments applied on lint; spongiopiline; linseed and mustard poultice; the ice-bag; cold lotions. The warm applications will generally be found the best. One to three drops of 'nepenthe,' one to three grains of Dover's powder, or a small hypodermic injection of morphia." One sees from the above that under the exigencies of space and the publisher Dr. McCaw has been compelled to sacrifice all guidance and precision, and even the rules of English grammar. The first sixteen pages are devoted to infant feeding; and here, again, the only method seems to be that if one food does not suit, another in the next paragraph may be tried. Dried milk foods may be "very convenient, besides being sterile," but they are also extremely deadly as a diet. The importance of sterilising all milk received in large towns is strongly insisted on, and later on the author points out that infants fed on sterilised milk for long periods may develop scurvy, rickets, etc. Of course, Dr. McCaw in his own practice would carry out infant feeding in the most scientific manner, and no doubt with the best results; but the readers of his little manual do not get the full benefit of his knowledge and experience, and in their ignorance may even be misled. The various diseases of the different systems are considered under the headings of causes, symptoms, diagnosis, morbid anatomy, prognosis, and treatment. Chapters VI and VII are devoted to fevers, and form the most useful part of the book, the description being clear and well suited to the beginner in medicine. The treatment recommended in the book is very safe and up to date, although there is rather more of poulticing and tent steaming than one is accustomed to see in the present day. Although not personally an enthusiast for medical aid works, I am sure that those who like them will find this work of Dr. McCaw's to be one of the best of its kind.

G. A. SUTHERLAND.

Analyses and Preparations.

MELLIN'S FOOD.—This well-known preparation is a malted food, the starch of barley and wheat having been transformed into dextrin, maltose, and dextrose by means of diastase. It is entirely free from starch. It is used with milk, and directions are given for the amounts of dilution at various ages.

HORLICK'S MALTED MILK.—This resembles the above in being a malted food, and only differs from it in the fact that Pasteurised cow's milk is combined with the malted wheat-flour in the process of manufacture, and the whole dehydrated. It is a pleasant preparation, and much liked by some children.

Notice to Subscribers and Correspondents.

THE Editor has been favoured with a large number of letters from gentlemen at home and abroad approving of the inception of a journal for children's diseases in Great Britain. It is impossible to reply to all these letters individually, but correspondents are thanked collectively. The Editor would merely add that he will be at all times glad to receive suggestions in regard to the 'British Journal of Children's Diseases.'

SUBSCRIBERS are notified that the JOURNAL should reach them a few days before the nominal date of publication, viz. on the 1st of every month. It is requested that any delay in delivery may be at once notified to the publishers, Messrs. Adlard and Son, Bartholomew Close, London, E.C.

Authors of papers are entitled to twenty-five reprints of their articles provided application be made at the time of correction of the proofs.

DR. G. E. SHUTTLEWORTH.—Yes, we are prepared to reproduce illustrations in black and white if deemed suitable.

DR. THEODORE FISHER (Bristol).—Possibly: we will try to do so.

DR. LEONARD GUTHRIE.—Thank you: see the present issue.

MR. SYDNEY STEPHENSON.—Your article shall appear in a forthcoming number.

DR. FLETCHER BEACH.—Your MS. has been received.

DR. HENRY ASHBY (Manchester).—In our next number. The time allowed was not sufficient for the reproduction of your illustrations.

DR. LEWIS MARSHALL (Nottingham).—Marked for early insertion.

TENAX.—We fear the paper is not suited to our pages.

DR. LUTAUD (Paris).—Gynaecological memoranda, in so far as they relate to children, will be acceptable.

DR. DARIER (Paris).—Yes: we have noted your article on dental malformations in our contemporary 'The Ophthalmoscope.'

DR. CARRE-SMITH.—Milk prescriptions are dispensed at the Walker-Gordon Laboratory, 79, Duke Street, W.

THE
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No. 2.

Original Articles.

A CASE OF HYDATID CYST OF THE BRAIN, INVOLVING
THE RIGHT FRONTAL LOBE AND ANTERIOR HORN
OF THE LATERAL VENTRICLE.

By HENRY ASHEY, M.D., F.R.C.P.,

Physician to the Manchester General Hospital for Children.

HYDATID cysts are not often found in the brain, and it is safe to say are not easily distinguished from other forms of cerebral "tumour" of slow growth; but inasmuch as they are more amenable to treatment by surgical means than any other form of cerebral "tumour," it is a matter of importance to be able to make a differential diagnosis.

Hydatid cysts are for the most part of slow growth, and tend to push on one side and compress the brain tissue. They are certain to give rise to increased intra-cranial pressure, and this increased pressure is likely to render regional diagnosis difficult.

In the following case the position of the cyst was localised during life in the right frontal lobe, but the nature of the "tumour" was only revealed at the post-mortem examination. Unfortunately no exploration was made.

History.—Samuel H—, aged 8½ years, was admitted into the Manchester Children's Hospital March the 24th, 1903, and died June the 24th, 1903. The mother gave the following history of his illness:—The boy had not been well for some two years and a half, being subject to headaches during this time, and was often "faint" and sick. He attended school till three months ago, but lost a good deal of time through headaches. He was in Standard I. The headaches were always referred to the forehead over the right eye; he moped a good deal and would not play with other boys. After a while the headaches were accompanied by twitching of the right side of the face, but he did not lose consciousness. About three months ago she took him to the Eye Hospital on account of his sight failing (early optic neuritis was diagnosed by Mr. E. Roberts). About this time he began to suffer from "fits." The mother always knew when they were coming on by his crying out with pain in his head; then the right side of his face twitched, followed by clenching of the right hand and giving way of the leg of the same side. He was often unconscious for some hours. His left side was unaffected. Lately he had developed a squint in his right eye, and had been very dull and stupid.

Symptoms.—When admitted into hospital it was noted that he was a well-nourished boy with rather an anxious expression. He walked perfectly well, with no sign of staggering or paresis of the limbs. There was no loss of sensation to be made out. There was exaggerated knee-reflex on the left side, with some ankle-clonus. There was a somewhat vigorous knee-jerk on the right, with no clonus. Flexor plantar reflex present on both sides. He was mostly very quiet, and slow in answering questions, and slow of comprehension. There was external strabismus with dilated pupil on the right side, double optic neuritis with tortuous veins, some thrombosis, and small hæmorrhages.

During the early part of his stay in hospital he had frequent screaming attacks, calling out "Daddy, daddy," followed by periods of unconsciousness; on one or two occasions the right side of the face was convulsed. Later the fits, which occurred at intervals of a week or so, were followed by clonic spasms of the arms and legs, but most marked on the left side. Within a few weeks of his death he passed into a state of almost continuous unconsciousness or drowsiness, and his limbs, especially the left side, became semi-rigid and flexed, though at times they would relax.

Post-mortem (pathological report by Prof. Sheridan Délépine).—Seen from above, the brain looks large for a boy of his age. The

right frontal lobe is larger than the left. The posterior three-fourths of the middle and inferior frontal convolutions (right side) are flattened, and the sulcus between them obliterated. In a region corresponding to the junction of the middle and posterior third of the inferior frontal sulcus, the grey matter has been entirely destroyed, and the transparent walls of the cyst are visible under the meninges over a circular area measuring one inch in diameter. Around this spot the brain substance is reduced to a thin membranous layer. A

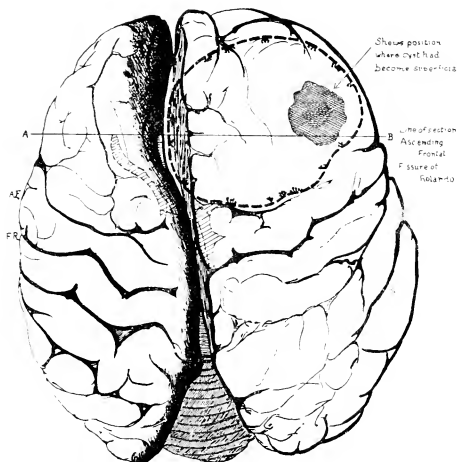


FIG. 1.—Rough sketch indicating relations of cyst to superficial markings of brain, seen from above. Cyst walls, thick broken line. Position of anterior horns of lateral ventricles represented by light shading.

marked bulging of the mesial aspect of the right frontal lobe is visible. This swelling has caused compression of the left frontal lobe for an inch and a half in front of and above the level of the genu of the corpus collosum, and for an equal distance behind that point (see Fig. 1.) The cortex of the right frontal lobe in the region of the frontal bulging is very thin and smooth. The external appearance and the consistency of the parts indicate that the superior frontal convolution, the anterior parts of the middle and

inferior frontal convolutions, and the ascending frontal convolution, although compressed, were not actually destroyed. The lower aspect of the right frontal lobe bulges downwards, and must have compressed the orbital plate of the frontal bone. The orbital sulci are obliterated and the grey matter of the gyra reduced to a membranous layer, through which the outline of the anterior part of the temporo-sphenoidal lobe can be easily recognised. The anterior part of the temporo-sphenoidal lobe, and the olfactory, optic, and ocular nerves, must have been compressed.

On opening the cyst it was found to be due to the presence of a large unilocular hydatid of the *tænia ecchinococcus*. The cyst measured three inches in its largest diameter, with thick transparent

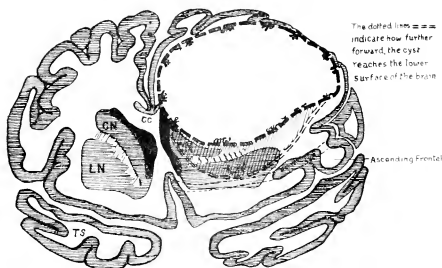


FIG. 2.—Diagram showing approximately the relations of the hydatid cyst to the parts of the right frontal lobe in vertical planes indicated in Fig. 1 by line A B. C.N. Caudate nucleus with adjacent part of lateral ventricle (black). L.N. Lenticular nucleus, anterior part. T.S. Temporo-sphenoidal lobes. C.C. Corpus callosum a little behind genu.

walls, to which were attached numerous broods of typical scolices, apparently active. A thin fibrous capsule separated it from the surrounding brain substance and from the cavity of the right lateral ventricle; with the exception of this membrane, the cavity in which the cyst was lodged was continuous with the cavity of the anterior horn of the right lateral ventricle. The basal ganglia of the same side were displaced backwards and downwards, but not destroyed.

Summary.—In this case there were symptoms which suggested cerebral troubles for some two and a half to three years. The early symptoms consisted of headache, vomiting, and “faints,” produced probably by the gradual increase in size of the cyst, causing increased intra-cranial pressure. It is curious that the first focal

symptom, with the exception of the local pain, was the twitching of the face on the same side as the lesion, produced apparently by the bulging of the cyst in the direction of the mesial line, and compressing the neighbourhood of the face centre of the opposite side; at the same time much more compression had been exerted from within on the ascending frontal, and middle, and inferior convolutions of the right side, without, as far as can be gathered from the history, giving rise to any regional symptoms. Towards the close of the illness there was first an exaggeration of the reflexes, and then a spastic condition of the left arm and leg, due probably to the compression of the right internal capsule.

A diagnosis of tumour of the right frontal lobe was made during life on the strength of the headache being referred so persistently to the forehead over the right eye; the optic neuritis, with thrombosed veins and hæmorrhages; and the paresis of the third nerve. The eclampsia involving the face, arm, and leg on the same side as the headache suggested compression or irritation of the internal frontal convolution on the opposite side. A hasty assumption that the lesion was a solid tumour too deeply seated for surgical interference is to be regretted, as it was clear that the cyst might have been readily tapped and drained. The case certainly suggests the propriety of at least trephining in all cases of cerebral disease where there are signs of increased intra-cranial pressure and intense optic neuritis.

The case offers no evidence one way or another as to the functions of the frontal lobes. That he was dull and stupid is certain, as well as very neurotic and irritable at times; but headaches and high intra-cranial pressure would readily account for all this. No loss of sensation was detected; unfortunately the boy's sense of smell and taste were not tested. Practically all the time he was under our observation he was either very dull and stupid or else in a morbidly excited state.

I must acknowledge Professor Sheridan Délépine's great kindness in examining and making drawings of the specimen, and also my thanks are due to Dr. McHraith, our late resident medical officer, for his careful notes of the case.

SOME CASES OF LYMPHANGIOMA.*

By ALBERT CARLESS, M.S.Lond., F.R.C.S.,

Professor of Surgery in King's College, London; and Surgeon to King's College Hospital, etc.

It has fallen to my lot to treat a number of these growths during the last few years, and inasmuch as their characters and peculiarities are none too clearly described in text-books, and my cases have ranged over most of the different types assumed by them, it has seemed worth while picking out some of the more characteristic so as to give an idea of the whole subject.

It is a little difficult to draw an exact line of demarcation around growths which should merit this title; between them and the lymphangiectases a somewhat large group exists, of which it is almost impossible to say to which class one should assign the individual members. Theoretically, one looks on a lymphangioma as a tumour built up of *newly formed* lymphatic vessels, whether or not they retain their tubular characters, whilst the lymphangiectases are conditions due to the distension of *pre-existing* lymphatics, and the latter are usually associated with interstitial overgrowth of the tissues involved, constituting in the extremities conditions akin to elephantiasis. The difficulty in particular arises with the unilocular or multilocular cysts, which form the majority of cases known as cystic hygroma; whilst the term lymphangioma is usually applied to these, it is, to my mind, quite an open question whether it is strictly merited.

I propose to lay before you the characters of five cases. Of these, one was purely cutaneous; two involved skin and subcutaneous tissues; three were typically cystic; and the last was a solid growth, but covered by and associated with a marked cutaneous development.

CASE I.—The patient was a child under twelve months of age, of poor physique and badly nourished. It was affected by a patch of lymphangiomatous tissue upon the temple, the size of a shilling or a little more. It presented the typical appearance of what may well be termed a *lymphatic naevus*. The patch was of a brownish-yellow colour; the surface was slightly irregular and papillated, and on examination with a lens one could see that each of the enlarged papules of the skin was the seat of a dilated lymphatic covered with epithelium. There were a few enlarged blood-vessels in the neigh-

* Read before The Society for the Study of Disease in Children, December the 11th, 1902.

bourhood. As the condition was not increasing in size, and as the child's nutrition was peculiarly defective, I advised that it should be carefully watched and not dealt with at the time; any increase would determine active treatment, in the shape either of destruction by the actual cautery or excision.

In the third and fifth of the cases here recorded, a similar condition was present in association with deeper lymphangiomatous manifestations, but was spread over a much more extensive surface. Not infrequently patients scratch and irritate the affected areas, giving rise to a flow of lymph from the surface, and perhaps followed by attacks of inflammation which may lead either to extension or to cure.

This lesion is sometimes associated with a condition in which the lymphatics are distended to such a degree as to constitute vesicles as large as a half pea, but the latter may also occur without the former. These *lymphatic varices* are by no means uncommon, and are best treated by complete extirpation if they be few in number, or by opening them and cauterising the exposed surface. A very good illustration of this "*Lymphangioma circumscriptum*" appeared in the 'British Medical Journal' on June the 3rd, 1893.

Lymphangiomata of the subcutaneous tissues similarly present themselves under two chief manifestations, viz., the tubular, and the cystic or cavernous. In the former, as in the *hemangiomata*, the newly formed vessels remain as capillaries, and constitute soft pulpy or spongy swellings, which can sometimes be reduced in size on pressure. In the cavernous type, cysts of greater or smaller size are found, associated or not with the spongy tissue just mentioned, and filled with lymph, to which a greater or less quantity of recent or old blood is not infrequently added. On the whole, one is inclined to think that the purely cavernous without admixture of spongy tissue is more frequently seen. As an illustration of this, the following case may be noted.

CASE 2.—D. M. S—, aged 5 years, was admitted into King's College Hospital on September the 9th last for a cystic swelling situated in the lower part of the right cheek and upper part of the neck. It had only been noticed three months previously, but during the month preceding her admission it had increased in size very considerably. It extended upwards as high as the external auditory meatus, downwards to the level of the thyroid cartilage, backwards to the anterior border of the sterno-mastoid, and forwards nearly as far as the middle line. The swelling was tense and elastic, apparently loculated, and

the skin over it was normal and moved freely; the growth appeared to be more or less attached to deeper structures. The limits of the swelling were quite sharply defined, and it was obviously of a cystic nature. It was operated upon on September the 11th, and on incision proved to be a thin-walled multiloculated cyst, containing serum mixed with blood, which from its colour had been extravasated into it some little time. The various loculi penetrated deeply amongst the structures of the neck, and were in close proximity to the vessels; the lingual and facial arteries projected into the cavity, and were only separated from it by the endothelial lining. One loculus ran up under cover of the mandible into the pterygoid region. It was impossible to dissect out in its entirety the whole of the lining wall, and hence those portions which could not be thus dissected away were well scraped by a sharp spoon. The wound was closed by a continuous suture and healed by first intention.

I look on this growth as a pure cystic lymphangioma, though why it appeared in this situation, and why it developed so suddenly and rapidly, it is impossible to say. Its definite limitation rendered it very suitable for treatment by operative measures. Not a few growths ordinarily termed cystic hygroma are of this type; they are perhaps more frequently composed of a congeries of smaller cysts than of a single one, but they are frequently quite amenable to operative treatment. It is by no means unusual to see a hamangiomatous element also present, and this association may explain why the fluid contained in them is stained or mixed with blood. In one instance which I saw years back under the care of Lord Lister, it was possible to reduce the size of the mass by pressure to a considerable extent, and as soon as the compressing force was removed the tumour swelled up to its former dimensions.

Quite distinct in their features from this, although still cavernous lymphangiomata, are the two next cases.

CASE 3.—H. G—, a boy aged 6 years, came under my care at St. John's Hospital, Twickenham, about two years ago. He was the subject of a large cystic swelling on the left side of the posterior thoracic, and abdominal walls. This had existed from birth, but had increased in size rapidly during the previous few months. The mass extended from the mammary line in front nearly to the middle line behind; from above downwards it was about 4 inches in diameter, and projected outwards to such an extent that it resembled in size a large cocoa-nut. Several cysts could be detected, but the main central one was of considerable dimensions. The skin covering

the mass was adherent to it, and in part the seat of a cutaneous lymphangioma resembling that described in Case 1. The growth appeared to be more or less fixed to the thoracic parietes. I dealt with it in two operations. In the first the incision was a straight one placed across the centre of the mass, and extending from an inch and a half external to the left nipple obliquely downwards and backwards nearly to the middle line behind just above the top of the sacrum. The main cyst was thereby opened and found to contain serous fluid. Many other cysts were present, but in addition to this was a considerable quantity of a soft spongy tissue which oozed lymph when cut into, and was much of the same character as the soft spongy haemangiomatous tissue found in ordinary naevi. This, together with the lining wall of the main cyst and the greater portion of the affected skin, was dissected away; but it was found that the soft naevoid tissue extended into and had infiltrated the superficial muscles covering the thorax and abdomen, and it was necessary to encroach on these to a considerable extent in order to get clear of the growth. There was a good deal of bleeding in this procedure, and therefore it was thought wise not to attempt the total extirpation of the outlying portions of the mass towards the middle line. The patient recovered from this operation perfectly well, and some time later a second operation was undertaken in order to remove the remains of the tumour, which had once again started growing. This time one made a curved incision extending from the upper end of the scar to nearly the lower, and reaching back as far as the middle line. This large flap was dissected up, and all the remaining portions of the growth were removed. The wound healed by first intention. I saw the patient a few weeks back, *i. e.* eighteen months after the second operation, and found that the condition was perfectly satisfactory; there was no sign of any recurrence, and the skin only in one spot showed evidence of the preceding lymphangiomatous condition which had involved it.

CASE 4 was a less satisfactory one of a similar type, in which, however, a fatal issue ensued in spite of extensive operative interference.

Mary E—, aged 3 days, was admitted into King's College Hospital under Mr. Rose on March the 3rd, 1902, with a large cystic swelling beneath the left side of the jaw, extending from the symphysis menti to the mastoid process. The skin was not adherent over the mass, and several distinct cysts could be made out. The growth increased rapidly in size, several of the cysts appearing to

merge into one another under observation, and the mass soon began to project further backwards behind the sterno-mastoid. On March the 10th Mr. Rose operated, making an incision more or less parallel with the ramus of the jaw over the more prominent cysts. The skin was separated from them, and the cysts opened. They contained yellow serous fluid and a substance of jelly-like structure, probably due to coagulation of the lymph *in situ*. The greater part of the mass was removed, and its pedicle ligatured. The wound was closed and the child did well, but the notes state that on March the 20th, before the child was discharged, the swelling under the chin was again commencing to enlarge. The fluid contained in the cysts is reported by Dr. Grünbaum to contain 0·4 per cent. of albumen. The wall of the cysts was composed of connective tissue, in parts undergoing myxomatous degeneration; the cyst cavity was not lined by epithelium. The solid material in the cysts was said to be organising fibrin.

The child was admitted a second time under my care a few months later. The growth had then attained considerable dimensions, extending under the chin as a projecting rounded mass, and also occupying both triangles of the neck. The child's nutrition had by this time begun to suffer, and although operation was essential, one was a little afraid as to what the result would be. A large incision was made, extending the whole length of the lateral aspect of the neck, and it was early seen that the sterno-mastoid was extensively invaded by the growth, and that a removal of its whole thickness in a portion of its extent was required—in fact, there were very few muscles-fibres left towards the centre. The growth had also attacked the parotid gland, and its removal from this region necessitated the division of a portion of the facial nerve. In spite of the very extensive dissection, it was impossible to remove the whole mass, especially under the chin. When the operation was finished, the whole of the deeper structures of the neck were laid bare, and one had to place the skin-flap down on the internal jugular vein with no other structure intervening. In spite of all things, the wound healed satisfactorily, and the child was sent out of hospital; but, unfortunately, the side of the face remained partially paralysed.

The ultimate result was that the tumour grew once again, burst through the skin and became infected. The child was admitted to hospital for a third time on January the 10th this year, and died of septic absorption.

The most important feature in each of these two cases is the tendency obviously existent in them to infiltrate surrounding struc-

tures. The sterno-mastoid in one case, and the superficial abdominal muscles in the other had been invaded, and their tissues infiltrated and destroyed; the parotid gland in Case 4 had also been attacked. In the former case the parts involved were of less importance, and therefore could be freely dissected away; but when the deeper tissues of the neck are affected, serious results may follow, and life itself may be destroyed. This tendency to invade and infiltrate has been noticed by other observers, and must ever be kept in mind in advising as to treatment. The tissue is plainly of a lowly organisation, and it is quite an open question whether there is not some added sarcomatous element present. A similar instability of the hæmangiomas has also been noticed.

Mr. Betham Robinson related a case somewhat similar in which the parotid region was invaded by a growth of this nature, though there it was simply cystic and not of the spongy type. An operation was undertaken, but only a portion could be removed. The growth recurred, and the child subsequently died of asthenia ('Path. Soc. Trans.,' 1896). Mr. Spencer has also reported to the Medical Society a case of diffuse lymphangioma of the lower extremity, and has referred to some others of a similar type; but they do not seem quite to fall into line with cases such as I have referred to, and are more like diffuse lymphangiectases ('Med. Soc. Trans.,' 1892, p. 133). Zuccaro ('Puglia Medica,' 1894, Nos. 8 and 9) also relates a case of diffuse cystic disease of this type in the upper arm and thorax of a child seventeen days old, where the connective tissue was riddled with cysts, and gives a careful account of the histology. Complete removal was impossible, and death occurred as the result of septic processes starting in the wound, which could not be completely closed. Vautrin ('Revue de Chirurgie,' 1898, p. 1128) relates a case of mesenteric lymphangioma which he discovered post mortem. The growth had invaded the muscular tunics of the stomach, and was surrounded by agglutinated coils of intestine. He emphasises the gravity of this invasion, and looks on it as analogous to that of a malignant tumour.

Operations for partial removal must therefore always be avoided, if possible, but there are not a few cases on record in which a good result was subsequently obtained. D'Arcy Power ('Brit. Med. Journ.,' December the 4th, 1897) relates one in which spontaneous disappearance of the mass occurred subsequently, owing to an attack of inflammation in the part left behind; but, as one has indicated by the cases referred to above, this inflammation may not always lead to a satisfactory issue.

The last case I have to describe was an interesting one in which there was a solid fatty growth on the anterior thoracic wall, adherent to the skin which covered it in, and this in turn was invaded for a good portion of its extent by a cutaneous lymphangiomatous development, similar in characters to that which I alluded to in my first case.

The child, M. S—, was 11 years of age, and the growth had been noticed since she was two years old. It increased gradually in size, but gave no inconvenience till about two and a half years previously, when she was operated on by Mr. Stanley Boyd at Charing Cross Hospital. The mother stated that there was no sign of the mass after this procedure, but that it commenced to grow again shortly afterwards. On her admission to King's College Hospital in August, 1901, the swelling extended vertically from the second to the fifth rib inclusive, and from half an inch to the right of the middle line to well into the left axilla. It projected forwards two or three inches, constituting a tumour rather larger than a fist; and towards its lower part could be seen the rudimentary breast, which was quite independent of it. In consistence it was soft, slightly lobulated and irregular; freely movable on the deeper parts, but the skin was adherent over it. Enlarged veins coursed over the mass, and the scar of the former operation ran transversely across its lower border. The skin over the greater part of it, and especially towards the axilla, was slightly warty and papillated, resembling in colour and appearance the lymphangiomatous developments already described. No enlarged glands were to be felt in the axilla, and the growth was quite painless.

The whole mass was subsequently excised, and as it encroached somewhat closely upon the pectoral muscle, which looked decidedly infiltrated, it was thought better to remove the sternal portion of that muscle, and to carry the incision well into the axilla, from which a somewhat enlarged gland was removed.

The exact nature of this case is certainly open to discussion. The microscopic report as to the cutaneous condition merely stated that it was a papillomatous nævus; but looking to the appearance of the lesion before removal, the total absence of any evidence of circulating blood, and the entire accordance of its characters with those of demonstrated lymphatic nævi, one is forced to the conclusion that it must be placed in that group.

As to the main mass, the report stated that it was merely fat, and that no lymphatic or hæmangiomatous developments were present; it was, however, a large mass, and it is possible that the portion that

might have demonstrated its dependence on a lymphangiomatous origin was not examined. That fibro-fatty growths are associated with lymphangiomatous developments cannot be doubted. Mr. Marmaduke Sheild showed a child to the Medical Society in 1893 ('Med. Soc. Trans.,' vol. xvi, p. 350) who was the subject of what he supposed to be a congenital fibro-fatty growth. In the next year's 'Transactions' (p. 334) the sequel of this case is related. An acute attack of inflammation supervened in the growth, which became enormously enlarged, hot, red, and cedematous, and in spite of careful nursing the child died. Post mortem it was found that the greater part of the growth consisted of solid fibro-fatty tissue, but that towards the axilla it merged into a sponge-like growth, and finally into distinct cysts, the size of peas or grapes, filled with yellow serous fluid. Spontaneous inflammation had occurred, and the child had been unable to withstand the inflammatory fever and exhaustion. I look on my case as akin to this, but that the transformation into a cavernous type of lymphangioma had not been reached. In such developments one sees an analogy to the lipomatous conditions which are sometimes found associated with the hamangiomata.

REMARKS UPON "ETHYL CHLORIDE" AS A GENERAL ANÆSTHETIC.*

By J. HENRY CHALDECOTT,

Senior Anæsthetist to the Italian Hospital, and to the Metropolitan Throat, Nose, and Ear Hospital.

It is comparatively seldom that innovations of any importance occur in the province of anæsthetics, at any rate so far as the introduction of new anæsthetic agents is concerned. Occasionally a new mixture or substance makes its appearance, but after a short trial is discarded, having failed to hold its own with its older rivals, nitrous oxide, ether, and chloroform.

It seemed at one time as if ethyl chloride would, in this country at any rate, have met with a similar fate, but chiefly owing to the perseverance of Dr. MacCardie, of Birmingham, its claims began to be recognised, and I venture to think that before very long it will be generally used for operations of a certain kind.

* Read before The Society for the Study of Disease in Children, October the 16th, 1903.

My own experience of its use dates from about two years ago, when I gave it an extensive trial for operations upon the throat and nose. I was at that time administering it from a Brener's inhaler, but I found it so unreliable, and the induction of anæsthesia in many cases so tedious, that for a time I discarded the drug entirely. I subsequently, however, ascertained that Dr. MacCardie, who had just published a long list of successful cases, administered it from an Ormsby's ether inhaler, and since adopting this method, I have had nothing but unqualified success with it, and have come to regard it as an almost ideal anæsthetic for suitable cases.

There are three methods of using ethyl chloride to which I should like to call attention.

No. 1 consists of cases in which a single dose only is given, and anæsthesia having been induced, the mask is removed, and the operation performed. This class of case includes all short operations upon the nose and mouth, such as tonsillotomy and the removal of adenoids, and as a very large percentage of these cases are children, this branch of the subject is of special interest to us as members of this Society. As you are probably aware, there has for some years been a wide difference of opinion as to the proper anæsthetic to employ for this operation, one school maintaining that chloroform is the only suitable agent, and refusing to be reconciled to the use of nitrous oxide, or to the mixture of nitrous oxide and ether, on the ground that they do not give a satisfactory type of anæsthesia, and that by exciting cyanosis and secretion of mucus they embarrass the operator. The "gas and ether" school, on their side, draw attention to the enormous mortality which seems to be inseparable from the use of chloroform in these cases, and contend that it is unjustifiable to subject patients to such a risk for an operation which in itself entails no danger to life.

Now, although I belong to the latter party, I am quite prepared to admit that, especially in the case of children, nitrous oxide or nitrous oxide and ether anæsthesia is by no means always ideal, and I am in consequence doubly glad to welcome the substitution of ethyl chloride on the ground that it strikes the happy medium by combining the respective good points of chloroform, nitrous oxide, and ether, without any of their attendant disadvantages; it produces, in fact, a type of anæsthesia as quiet and as free from asphyxial symptoms as the best form of chloroform narcosis, and at the same time is as rapid as nitrous oxide and as stimulating as ether.

Its points of superiority over chloroform in these cases are:—

1. It can be given with the patient in any position; (2) anæsthesia

can be induced very much more rapidly than would be possible, or at any rate safe, with chloroform; (3) there is no struggling; (4) a measured dose can be given; (5) it is probably much safer; (6) the after-effects are quite trifling, or absent altogether.

Its advantages over nitrous oxide are:—(1) The anaesthesia is of a better type in that it is quieter, there being a complete absence of suffocative symptoms, such as opisthotonos and jactitation; (2) no cumbrous apparatus is necessary; (3) the available anaesthesia is about twice as long.

Its advantages over ether are:—(1) It is much pleasanter to take; (2) induction of complete anaesthesia is much quicker, and is unattended by struggling; (3) there is no cyanosis or secretion of mucus; (4) it does not leave an unpleasant taste in the mouth or smell in the room; (5) the after-effects are generally much less.

In administering ethyl chloride for these or for other short operations upon the mouth, such as dental extractions, the length of available anaesthesia can be estimated with tolerable accuracy by the dose given, and one can consequently arrange matters according to the pace which may be expected of the particular operator—but in this connection my experience leads me to utter a word of warning, viz. that if for the removal of tonsils and adenoids it is thought necessary to push the drug so as to obtain an anaesthesia of more than forty seconds, it is safer to have the child lying down, and the fauces well sponged out as the bleeding occurs. When nitrous oxide, either by itself or combined with ether is used, this is rarely necessary, as the swallowing reflex remains fairly active, but with ethyl chloride it disappears more suddenly and returns much more slowly, and unless care is taken blood may find its way into the air passage.

2. The second method of administration is for short cases, which, from the position of the part operated upon, do not necessitate the removal of the mask, and this class includes practically all short minor operations.

It is difficult just yet to speak with absolute certainty as to how ethyl chloride compares in point of safety with the other anaesthetics, but it certainly appears to be safer than chloroform; and if further experience does not disillusionise us upon this point, it might well supersede chloroform in all minor operations. It is notorious how many of the chloroform fatalities occur during minor operations, and one can imagine nothing more distressing than for a child to lose its life for the sake of undergoing some slight surgical procedure, which *per se* carries no risk.

I have myself given ethyl chloride for opening abscesses, removing foreign bodies from noses and ears, tenotomy, circumcision (one case was a child of fourteen days old), rectal and abdominal examinations, amputation of finger, and osteotomy (tibia), and have never yet met with any alarming symptoms. Used in this way for short surgical emergencies, ethyl chloride should prove a great boon to the general practitioner, who has perhaps on the spur of the moment to deal singlehanded with a fractious and struggling child. Two cubic centimetres sprayed on to the sponge, and the mask held tightly on the face, will in a few seconds produce a sufficient anaesthesia for the opening of an abscess, or for an examination of an injured joint or limb. In the necessarily hurried work of the casualty departments of hospitals, ethyl chloride is immensely useful.

The after-effects in these cases are of course more marked than in "single dose" cases, but unless the patient's stomach is full of food, there is rarely severe vomiting.

3. The third method of administration consists of inducing anaesthesia by means of ethyl chloride, and continuing it with ether or chloroform according to the requirements of the case, and for this purpose the drug is very useful on account of the rapidity of induction and the absence of early cyanosis and struggling.

A mixture known as "Somnoform," of which ethyl chloride is the principal ingredient, has lately been extensively used. It has not, however, any single advantage over the simple drug, and compares unfavourably with it in smelling nasty and leaving an unpleasant garlicky taste in the mouth; nor is there, so far as I can see, any advantage in using a mixture of drugs when a single one answers the purpose equally well, if not better.

The actual administration of ethyl chloride is very easy when an Ormsby's inhaler is used, and I believe this is the best and simplest form of apparatus. The only slight modification which I have had added to the ordinary "Ormsby" is to have the mask rather deeper than usual, so that the sponge may not be too near to the patient's nose. With this mask I never meet with any coughing or struggling, and most of my patients tell me afterwards that the inhalation was by no means unpleasant.

In the case of a child two to three c.c. of the drug are sprayed on to the sponge, the mask is applied tightly to the face, and one breath allowed with the air-slot open, the slot is then closed, and no further air admitted until anaesthesia is complete; snoring usually ensues within twenty seconds, and a few seconds later the patient will be perfectly anaesthetic, with flaccid limbs and insensitive

corneae. The mask can now be removed and the operation performed.

If the operation is one which does not necessitate the removal of the mask, it can be commenced after two or three snoring respirations, and if it is wished to continue the anæsthesia with ethyl chloride, more of the drug must be sprayed on the sponge from time to time as required. In these cases it is as well to have a second sponge at hand, to replace the first when it gets frozen. I always use Duncan and Flockhart's pure ethyl chloride.

I have now administered ethyl chloride over five hundred times, and the conclusions I have arrived at are:—(1) It is the best anæsthetic known for what may be called "single dose" cases, when the patient is anæsthetised, the mask removed, and the operation performed without any further administration; (2) it is certainly worthy of an extensive trial in all minor operations; (3) it is a safe and rapid means of inducing anæsthesia as a preliminary to chloroform or ether narcosis; (4) although its effects are transient it is doubtless a powerful anæsthetic, and should be carefully administered, and the patients properly prepared.

ENEURESIS IN CHILDREN.

By PERCY LEWIS, M.D.,

Honorary Medical Officer, Victoria Hospital, Folkestone.

THE variety of causes to which this condition has been attributed, and the very diverse treatments which have been recommended for its cure, suggest that its pathology has not been accurately studied.

The subjects of the complaint are mostly unhealthy in aspect, being either anæmic, bilious-looking, or lymphatic. Their skins are dull and inclined to acne or some of the low forms of eczema. They generally are not fond of meat, eat irregularly, and live mostly on farinaceous and saccharine foods. They are disinclined for exertion or school work. If these children are subjected to the usual routine of being taken up frequently during the night to pass water, they are found overcome with sleep and very difficult to rouse. They seem in a kind of stupor, into which they at once relapse on being put back to bed. At each time on being taken up they pass a large

quantity of urine. Yet a short time later they are found asleep, and the bed "deluged" with water. If the urine be measured it will be observed that there is seldom less than two pints passed in the night, and that this is sometimes nearly or quite doubled. On analysis the urine is found to have a very low specific gravity (1002—1005 is not unusual), neutral or alkaline reaction, and with a deposit of triple phosphates or oxalates. Very frequently a trace of albumen is present. The condition then at night is one of polyuria. The urine tends to become normal in the daytime, except in cases where the incontinence is continued during the day. The large quantity passed and the way in which the bed is "deluged" show that the bladder is not emptied until it is full. The unirritating urine does not give a sufficient "call" to the central nervous system to awaken the patient, but enough to start the necessary reflex for emptying the bladder only.

The treatment of this complaint, which has for some years been successfully carried out by the writer, was suggested by the consideration of a similar condition which occurs in infants fed on starchy foods. Such children always pass a larger amount of urine than normal. Their nurses complain that they are always soaking their diapers. When their starchy food is cut off this symptom disappears. It is the same with the victims of enuresis. In most cases a rigid anti-diabetic diet removes the symptom in a few days. The *cause*, however, due to a general depression of health produced by an excessive starchy diet, requires general tonic treatment at the same time. During the cure starchy food may usually be allowed for breakfast without "accidents" occurring at night. Without any other treatment hospital cases are relieved often at once, and finally cured, by being taken as in-patients and fed on the ordinary hospital diet. In private cases even small quantities of bread or cake, given at dinner or tea early in the treatment, cause the bed-wettings to recur. In about three to four weeks, sometimes sooner if the tonic treatment is pushed as well, a normal diet may be given without enuresis happening.

Whilst not wishing to contend that enuresis is a condition of late rickets, the writer is of opinion that it is a weak bodily condition caused by an excessive starchy diet, and associated with inability to properly digest that excess.

CONGENITAL CYST IN THE NECK IN AN INFANT.

By LEWIS MARSHALL, M.D.

Surgeon to the Children's Hospital, Nottingham.

W. H.—, when two days old, was admitted into the Children's Hospital, Nottingham, on December the 3rd, 1903, with a large cyst which occupied the posterior triangle of the neck on the right side. In size it might be compared to a small cocoa-nut. The infant was feeble and poorly nourished. It showed no other symptoms. It died the same evening. The labour was natural.

Autopsy.—The swelling in the neck was an unilocular cyst, with a thin vascular wall. It was situated behind the sterno-mastoid on the right side, and reached down to the first rib. It was lightly attached to the skin and carotid sheath, but it was closely adherent to the deep muscles.



It was quite subcutaneous, and had no connection with the spinal meninges.

Remarks.—I am indebted to the house-surgeon, Mr. Duncan, for the above notes. This case is worthy of notice because of the size and position of the cyst. Although lymphatic cysts are not uncommon in the anterior triangle of the neck, I have never met with one, before this case, in the posterior triangle. The large size of the cyst is also unusual.

ADMINISTRATIVE NOTES ON CHILDREN'S HOSPITALS.

By T. GLENTON-KERR,

*Secretary of the North-Eastern Hospital for Children, Hackney Road,
Bethnal Green, E.*

LAST month I was so bold as to promise for the next number something in the nature of a solution of the difficult and intricate

problem of how best to remove the feelings of hostility existing between the hospitals and the medical men practising in their vicinity. Now nemesis has met me, and the confidence with which I penned the last paragraph of the January notes has to a large extent departed. My schemes of reform, when viewed from the distance of a whole month, presented a most impressive appearance, but now I come to handle them much crudeness and much unfinished workmanship are painfully manifest, and I would fain disarm criticism by these few self-depreciatory words, expressive of the becoming humility with which my ideas are put forward and of my readiness to submit myself to the better judgment of my readers.

Generally speaking I think the hospitals are chiefly to blame for the present undesirable state of affairs, and that the initial obstacles to be overcome are the difficulty of getting the hospital authorities to recognise this fact and to see the advisability of taking action.

From the nature of the case it would not be reasonable to expect that any movement in the direction desired would be likely to originate in the lay committees, and I would therefore endeavour to bring home to medical men who are on the hospital staffs the responsibility which rests upon them in the matter. They can do much themselves quite apart from the governing bodies, and their influence would be sufficient in every case to bring about any reasonable regulations which they could unanimously agree upon.

The first step to be taken should, I think, be in the direction of instilling into the resident medical men the necessity for a more punctilious regard for the ethics of medical etiquette in all dealings, indirect or direct, with the general practitioners whose former patients may come under their hands. They should further be asked to take particular care to show the utmost possible consideration for any of their professional brethren with whom they may be thus brought into communication, and should be encouraged to remember that they themselves will (in most cases) be in general practice at some future time. This is of course a matter that depends almost entirely upon their chiefs on the staffs.

Having secured the goodwill of the residents, I would introduce a system of inviting practitioners to consult with the staff in cases where a patient admitted to the wards was found to have been under previous private treatment. It might also be desirable to make a similar arrangement as regards out-patients, but this would be more difficult, and I suggest the idea as applicable to in-patients only for the present. A large number of the cases admitted would be found to have been removed from the professional care of the local practi-

tioners and brought to the hospital for one reason or another by the parents, who do not generally take the trouble to consult their medical advisers on the subject. This is naturally galling to the professional man, but if he were to receive an invitation to visit the hospital for the purpose of consulting with the hospital physician or surgeon in regard to the case, he would be at once placed in a better position in the eyes of all his patients, and would feel that the hospital was doing its best to treat him fairly. He might not always be able to afford the necessary time for such a visit, as of course there would be no payment attached, but the fact of the opportunity being offered is the all-important point, and whether the invitation were accepted or not would be immaterial.

The next step to be taken should, I think, be a thorough overhauling (by the committees) of the systems in vogue in the out-patient departments in regard to prevention of abuses. It would be necessary that this investigation should be undertaken in a different spirit to that in which previous inquiries have been made. Small sub-committees should be formed in each case, and two or three representative medical men of the vicinity should be invited to discuss the matter with them. Such discussions would tend to greatly broaden the views of both parties, and, if it had no other result, would at least promote feelings of mutual respect and goodwill, which at present are sadly lacking.

Thirdly, the hospitals should endeavour to get into close touch with the practitioners by every possible means.

A perpetual series of lectures and demonstrations by the members of the visiting staff, open free to all qualified men, should be established at every children's hospital.

The case-papers of all interesting cases should be published by each hospital at regular intervals in pamphlet form, and should be sent free of charge to all medical men practising within a certain distance of the hospital.

The inherent expenses should be borne by the members of the visiting staffs, in view of the material benefits that should accrue to them through the kindling of a feeling of goodfellowship between the hospitals and the practitioners.

These measures on the part of the children's hospitals should greatly mollify even the most militant of general practitioners, and would, I believe, gradually reduce to a minimum the hostility that is now extant. I would appeal to the extremist to carefully reconsider his position in the matter. He should remember that the hospitals are public institutions "broad-based upon the people's will," and

must therefore be governed, broadly speaking, in accordance with public opinion. His idea that a patient should not be seen unless armed with a recommendation from himself would never be tolerated by those who "pay the piper," even it were to be entertained by those who, for the time being, are charged with the duty of "calling the tune." He should therefore abandon such chimerical notions once for all, frankly recognising the good work of the hospitals and deciding to meet them half-way should they come forward with the olive branch in some such manner as that I have indicated.

Here I shall leave the subject for the present, hoping that some of the seeds of suggestion thus scattered may fall upon good ground and bring forth fruit a hundredfold, but (shade of Tennyson, forgive me!),

"If these brief notes, of experience born,
Were taken to be such as closed
Grave doubts and answers here proposed,
Then these were such as men might scorn!"

The Society for the Study of Disease in Children.

A MEETING of this Society was held on December the 11th, at 11, Chandos Street, Cavendish Square, W. Mr. Sydney Stephenson in the chair.

An Abdominal Case for Diagnosis was shown by Dr. A. MORISON. The patient was a boy of nine, who had suffered from an attack of nephritis, accompanied by general œdema, albuminuria, and tube casts. After recovery he was sent to a convalescent home, and there a lump was discovered in the left side of the abdomen, situated low down. The boy said he had been conscious of something movable there for six months. Dr. Morison found a mass in the left iliac fossa which was fixed, and a part above which was movable. He believed the movable portion of the tumour was a floating kidney, which might possibly have become twisted so as to develop the renal symptoms above described.

Dr. CAUTLEY thought that the lump was more or less fixed, that

the attack of nephritis was probably unconnected with it, and that the mass was possibly tuberculous.

Dr. PERCY LEWIS (Folkestone) recalled a similar tumour which led to intestinal obstruction and proved to be a dermoid cyst.

Dr. GUTHRIE thought there was a movable kidney on the left side, and that the swelling below was probably tuberculous.

A Case of Exophthalmic Goitre in a girl aged 12 years was shown by Mr. ARNOLD LAWSON. The physical signs were all well marked. The chief interest of the case lay in the extreme youth of the patient, very few cases of Graves' disease at such an early age having been recorded. No cause could be assigned for the onset of the disease, the child's health had been excellent previously, and there was no family history of insanity or nervous disease. The constitutional effect of the illness on the child was very slight, although the disease had been in progress for over twelve months.

Dr. ROBERT HUTCHISON referred to a case he had seen in a child of eight years, and asked if there was any affection of the pelvic organs, and if early menstruation had occurred. The association of pelvic disorder in women with Graves' disease was a subject well worthy of study.

Dr. A. E. SANSOM referred to the case of a child of twelve who had developed this affection after an attack of influenza.

In reply, Mr. LAWSON said he had not examined the pelvic organs, but the menses had not commenced. There was no definite neurotic element about the child.

A Case of Mediastinitis in a boy of seven years was shown by Dr. E. P. BAUMANN. Last July he suffered from acute rheumatism, complicated by endocarditis and pericarditis. In September puffiness of the face and ascites developed. There was found to be a large liver and an enlarged heart. The abdomen had been tapped several times, but the evacuation of the fluid made no difference in the venous dilation of the neck. Examination by the X rays threw no further light on the case. In view of the history and the clinical symptoms a diagnosis of adhesive mediastinitis had been made. The boy's general health was good.

A Tumour at the Root of the Tongue was shown by Dr. GEORGE CARPENTER in a girl, aged 15 years, which was accidentally discovered. The mass was probably a dermoid in connection with the thyro-glossal duct. The thyroid gland could not be felt in the neck, and the possibility of the lingual swelling being a misplaced

thyroid was suggested, but that did not negative the absence of the gland in its proper situation, for it was well known that it might be non-palpable during life, and yet be found to be present at a post-mortem examination.

Mr. FRANCIS JAFFREY thought the swelling occupied the site of the thyro-lingual duct.

Dr. FRANK COLLIE (Balham) said he had known the patient for four years, and until one and a half years ago there was no question of any swelling. At the latter time she began to menstruate, and two months later a prominence developed in the region of the chin, which might have been due to the effort to get a free passage of air. Two well-known specialists in throat diseases had seen the case, and agreed that it was probably a case of displacement of the thyroid gland on to the dorsum of the tongue. As the child suffered no inconvenience, he advised that it should be left alone.

A Case of Congenital Heart Disease was also shown by Dr. CARPENTER.

A Case of Cirrhosis of the Lung in a girl of six years, shown by Dr. CARPENTER, was of three years' duration. There was neither pulmonary osteo-arthritis nor cardiac hypertrophy. There was no evidence of dilated bronchial tubes.

A Boy with Double Pes Cavus, aged 12 years, was shown by Dr. LEONARD GUTHRIE. Seven years previously he had suffered from a severe attack of polyneuritis of uncertain origin. At the end of three months he had completely recovered, save that the knee-jerks were absent and there was a tendency to contraction of the tendo Achillis on both sides. He had been admitted into hospital during the present year, suffering from a well-marked condition of talipes equino-varus, for which tenotomy had been performed, with improvement of walking powers. At present he showed a condition of pes cavus on both sides, strongly resembling that of Friedreich's disease, but without ataxy, the knee-jerks were absent, the muscles of all the extremities were small, but there was no paralysis. He was somewhat deficient mentally. After excluding other possible causes of the condition, such as spastic paraplegia, Friedreich's disease, polio-myelitis, and myopathy, Dr. Guthrie concluded that the case illustrated the after-effects of polyneuritis.

Dr. JAMES TAYLOR agreed with the diagnosis, and suggested that there had been six years ago some general toxic condition. This had not only affected the peripheral nerves, but also the anterior

horns of the cord and the highest cerebral centres. This had caused the impaired mental condition which was now present.

Dr. FLETCHER BEACH thought that there was defective moral control, probably the result of the early illness.

A Girl with Heart Disease, aged 11 years, was also shown by Dr. GUTHRIE, who regarded the physical signs as those of aortic valvular disease, with stenosis. The maximum of the intensity of the murmur was in the second left intercostal space.

Dr. THEODORE FISHER (Bristol) said that disease of the aortic valves, either congenital or acquired, was not so rare as was usually supposed. A variety of lesions affecting the aortic valves was found on post-mortem examination.

Various diagnoses as to the cardiac condition were given by members, including mitral disease, aortic regurgitation with presystolic thrill and murmur (Flint's murmur), pulmonary valvular disease, and patent ductus arteriosus.

A Dermoid Cyst, removed by Mr. J. W. THOMSON WALKER, from the front of the sternum in a girl of five years, was shown to the meeting. Since infancy a small round swelling had been observed, which had increased to the size of a large horse chestnut. It was easily dissected out. On microscopic examination hair-follicles, sebaceous glands, and sweat-glands were easily recognised.

A Specimen of Tuberculous Caries of the Upper Dorsal Spine, with an abscess pressing on the bifurcation of the trachea, was shown by Mr. DOUGLAS DREW. The patient was a child, aged 5 years, who, while under treatment for spinal disease, developed some difficulty in breathing, which at times became rather urgent. One of these seizures proved fatal from asphyxia. The upper dorsal vertebrae were found to be extensively diseased, and there was a large thick-walled abscess pressing on the trachea and bronchi.

A Specimen of a Cystic Lung, removed from an infant five months old, was shown by Dr. GEORGE CARPENTER. The lower lobe of the left lung was cystic, the largest cyst being the size of a small orange. It was probably of congenital origin, and akin to the cysts found in the kidneys and spleen. During life the prominent feature was dextrocardia.

Cases of Lymphangioma were recorded in a paper read by Mr. ALBERT CARLESS,* which was discussed by Mr. Douglas Drew and Mr. Thomson Walker.

This paper appears in full in the present issue.

Editorials.

THE MILK SUPPLIED TO INFANTS.

THAT the present health and future well-being of the infant is mainly a question of food hardly admits of discussion, and that the sources from which the modern infants derive their nourishment are in need of inquiry and radical alteration is well known, or should be, to those whose duty it is to make periodical inspections of milch cows and their environment. The treatment of cow's milk by sterilization and pasteurization to counteract faulty methods of collection and disposal are manipulations that detract from the value of the milk as an infant food, and place it in such a subsequent position as to render it more prone to putrefactive changes, the development of toxins, and the production of gastro-intestinal disturbance in the nursing. As to the means which should be adopted for the appropriate treatment of cow's milk so as to render it more adaptable to the infantile needs, a variety of opinions would doubtless be expressed by the specialist.

There should, however, be unanimity upon one aspect of the case, and that is as to the extreme importance of insisting upon the purity of the commodity. As to the necessity for preserving the health and peace of mind of the animals supplying the milk, the provision of proper stabling, grooming, bedding, and a suitable food supply; the importance of personal cleanliness of those tending and milking the animals; and the extreme value of cleanliness in the storage of milk, the care of the utensils used in the collection and distribution of the fluid, on all these questions there would not be a dissentient voice amongst medical experts in sanitary matters. It is the performance of these elementary principles of hygiene and cleanliness which make for success in the hand rearing of infants, and which are so manifestly lacking in the milk trade.

The animals are often overcrowded in ill-ventilated dingy stalls, whose sole supply of fresh air and sunlight is dependent upon half-closed doors, which are more often kept tightly shut than opened,

especially during the winter months. Warmth is necessary to the production of a plentiful supply of milk, a cold spell diminishes the quantity. This is well known to the dairy farmer, and the necessary warmth is obtained at the cost of ventilation and by stewing the animals in a foul atmosphere. The effects of such unhealthy conditions on the cattle is obvious. One large dairy farmer informed us that he used to test his cows with tuberculin, and over 30 per cent. of them reacted to the test, but he had to discontinue the practice because his customers would not pay the small extra cost entailed. Tuberculous milk is possibly, therefore, being supplied to this wealthy and populous district at the present time because the necessary funds are not voluntarily forthcoming to meet the expense.

Grooming of the bodies of the cattle, and the toilette of their udders is almost unknown. "Cows," we have been told when drawing attention to the manure-begrimed state in which they were kept, "are such filthy animals;" that being a sufficient excuse to keep them dirty, possibly as an illustration of the old proverb, "the clartier the warmer." It is the custom amongst milkers to milk "wet" and not "dry," because it is easier. The hands of the milker are usually in such a filthy state that a starving man would think twice before accepting food from them, and yet their hands are practically laved in every ounce of milk that flows from the cow's udders to the babies' bottles. Disregard for cleanliness is also displayed in the care of the apparatus and utensils, but perhaps not quite to the same extent as in other departments.

When milk is delivered straight from the cows to the consumers, by reason of the close proximity of the customer, as happens in some urban districts, the disregard for cleanliness displayed in the collection of the fluid is not so acutely felt as it is in large cities, where the milk is at least twelve hours' old, and often many more before reaching the customer. The many explorations by not over-clean hands and persons through which milk passes in transit from the railways to the blenders and distributors do not improve its already contaminated condition. The large dairies which act as middlemen obtain the bulk of the milk supplied to their customers through the agency of farmers and cowkeepers, who contract to deliver their

milk to these companies at a specified rate. Thus the "Wild West Dairy Company" or the "Milky Way Dairy Company" and such like corporations, on whom the public blindly pin their faith, are in reality large milk depôts into which many farmers dump their dirty milk as contributions to the sum total of lacteal unwholesomeness. The filthy conditions under which the milk is obtained by and supplied to well-advertised milk corporations, who perform the office of distributors, and frequently in not too cleanly a manner, is, or should be, well known to the public-health officials. Such faulty methods of obtaining and distributing an important food supply do not often obviously injuriously affect the adult population in the absence of contamination by pathogenic germs. That is evidenced by the very healthy state of a populous district to which we have already drawn attention, which has the phenomenal death-rate of a trifle over 7 per 1000, which certainly cannot be excelled, and is not equalled by any district of similar population in the United Kingdom. But, although the general death-rate is very low the infant mortality rate is very high, much like that which obtains elsewhere and from the same causes, and this in spite of the excellence of its hygiene.

It is upon the infant population that contaminated milk is productive of the most harm, and the infant mortality rate is mainly a question of dietetics in which a dirty milk supply plays no unimportant part. To reduce this mortality a *pure* milk supply is essential, and to obtain that should be the aim of all municipal authorities. By devoting public funds for the erection of apparatus to sterilize and pasteurize an admittedly contaminated commodity is not the way to deal with the evil. Let these bodies apply their energies to obtaining increased powers to ensure the production of the pure article, which must be delivered to the infant in a pure state. When they have accomplished this much-to-be-desired end they may be looked upon as benefactors to all classes of the community, rich and poor alike.

The instruction of the poor as to the storage of the pure commodity (when that is obtained) is an important link in the chain of successful infant feeding in the lower classes, although not by any means confined to these, as also the question of municipal gratuitous

and rate-aided distribution of milk to the poor and other closely allied matters, but these do not concern us at present. To ensure success, in addition to obtaining increased powers, it will be necessary to safeguard the public interests, as has been advocated by Dr. George Carpenter in a recent address to the sanitary inspectors at Carpenter's Hall, by compelling all persons engaged in the milk trade, whether they be farmers, cowkeepers, middlemen, or retailers, to be *licensed*, and that a breach of the regulations necessary to obtain a pure milk should be met by severe penalties.

Sanitary authorities are at present provided with full powers to deal with abstractions and adulterations, but now they must make *purity* their aim and ideal—frame the necessary regulations, and seek increased powers from Parliament, to be backed by rigid inspections, to ensure the accomplishment of that ideal. Should these regulations force up the price of the commodity, the public must be prepared to ungrudgingly pay the additional cost. We have no doubt from our inquiries that there is a considerable margin of profit to ensure the expense not falling entirely, if at all, upon the public purse. In any event it will represent money well expended on a national asset of no small importance to the Nation, its men and women of the future.

TOBACCO SMOKING BY BOYS.

At last an influential movement has been started to call national attention to the evils of tobacco smoking by children, and a manifesto has been issued bearing the signatures of well-known people in all walks of life.

For remedying crying evils in this country, the stimulus of the "warm approval" of archbishops and dukes, as set forth in the daily press, is necessary to start the machinery of reform in active operation. This prompts us to ask whether it will be necessary to obtain "warm approval" in high places to ensure reform for what is a much greater evil, and that is the lack of interest displayed in the teaching and acquiring of knowledge in all that relates to the diseases of children, a matter of more importance to the nation.

The absence of facilities provided for the embryo family prac-

tioner to make himself acquainted with even the rudiments of this important branch of study, and the ignoring of this patent fact by those whose duty it is to superintend medical education in this country, are matters that require immediate reform.

Tobacco smoking by the young, while an evil, is not so great an evil as several others we could mention in relation to child life, such as that which permits a medical student to become legally qualified to practise medicine and surgery without being trained in or examined upon childish ailments by experts. Those calling in medical aid to their children have a right to insist that their advisers shall have been well grounded in this difficult branch of medicine; yet our medical schools and our numerous examining boards treat the matter with indifference, if not contempt. How long are we to suffer from this state of affairs? Are we to hope that reform will arise in our midst, or is it to be compelled by outside influences, like the tobacco vice?

Studies in child life and well-being, which are taken up to-day in England with a flourish of trumpets, and are deemed at the moment to be burning questions, have in reality been so for quite a long period, and, though a novelty here to the majority, are often a matter of ancient history to the initiated few, and to foreign countries, to wit, France, Germany, the United States, Norway, and elsewhere. Thus our transatlantic cousins, pioneers in all that relates to children's medicine, have for a long time recognised the evils accruing to the rising generation from this most pernicious habit of tobacco smoking amongst the young, especially amongst the English young, for after all it is but a habit, and an unnecessary habit, which is harmful to children, and had better not be practised by their elders. New York boasts of an institution called the Anti-Cigarette League, having branches in other American cities. The League is composed of school-boys, who have banded themselves together to discourage the smoking of cigarettes by precept and by example, but chiefly by the latter. Each boy is granted a badge, which he is expected to wear openly, so that his light may shine before his companions. This League has been productive of immense good in the United States, and we would recommend some such influence as this to the notice of those specially interested in the matter as one worthy of imitation.

But this is not sufficient. Repressive measures are required to

put a stop to a practice which stunts the growth of its devotees, renders our youth a readier prey to disease, and lowers their mental capacity and moral tone. It makes boys tired, stupid, lazy and irritable, and leads them on to lying and stealing.

In America the attempt to discourage cigarette smoking by the young finds expression in laws in a number of States. In Massachusetts, Oklahoma, Pennsylvania, Tennessee, Vermont, Washington, and West Virginia the selling or giving of cigarettes or cigarette papers to a minor is made a misdemeanour. In Pennsylvania the offence extends to tobacco in any form, in Tennessee to bringing cigarettes into the State, and in Washington it is unlawful for a minor to smoke.

A law passed in Norway in 1889 gives power to local authorities, on the approval of the King, to regulate the tobacco trade and prevent the sale of tobacco to any one under the age of fifteen years. The local authority also has power, through the agency of the police, to prevent the use of tobacco by children under fifteen in the streets or other public places. In Prince Edward Island sale to a minor under sixteen years of tobacco in any form is forbidden. Any minor under that age who has in his possession or smokes tobacco is liable to a fine of five dollars or seven days' imprisonment. Bermuda imposes a small penalty on persons selling tobacco, cigars, or cigarettes to children under sixteen years of age. In France numerous societies have been formed for the suppression of this growing habit, and the French Government have absolutely prohibited the use of tobacco in all their schools.

Cheap cigarettes have much to answer for, and Sir William Harcourt, when Chancellor of the Exchequer, in drawing attention a few years ago to increased revenue from tobacco, said: "I believe it is mainly due to the great increase in the consumption of cigarettes, which are especially attractive to our youthful population." On the authority of a book on tobacco, according to our American contemporary, 'Pediatrics,' it was the custom in England about the middle of the seventeenth century for children going to school to carry in their satchel with their books, a pipe of tobacco, which their mother took care to fill early in the morning, it serving them in place of breakfast. At the accustomed hour every one laid aside his book

to light his pipe, the master smoking with them, and teaching them how to hold their pipes and draw in the tobacco.

From the present condition of affairs it would seem that we are not unlikely to return to our former bad habits in respect to juvenile smoking.

A spectacle which is quite common in our big cities—the scramble by ragged urchins for cigarette and cigar stumps thrown into the dust and dirt by the passer-by, the seizure of the hard-won trophy and its consumption by the victor *coram publico*—is a sorry sight. Apart from the evil of the practice of smoking, it would be of interest to know how often pathogenic germs from the filth accumulation of the streets are introduced into systems of lowered vitality. In Edinburgh, where we happened to be not long since, we were astounded at the audacity of the juvenile smokers. It is a common spectacle to see groups of boys as young as eight years or even less, puffing away at their cigarettes on the tops of the tramcars, regardless of all public decency.

We have seen a boy in a small suburban town, so small that he could not see over the counter without craning his neck, call for his “penny packet of fags,” demand a match to light the cigarette which he selected from the bundle, and leave the shop smoking. A protest to the tobacconist elicited the response that if he did not serve the child somebody else would.

This steadily growing habit of smoking pervades all classes of juveniles, from the tiny tot in the gutter to the well-groomed school-boy resplendent in Eton jacket, immaculate “topper,” and a wealth of white linen collar, with this difference, that the former indulges in it openly and the latter in secret.

Not so long ago we were golfing, and on the golf-course one day our caddie, about fourteen years old, was smoking all through the round, and on our asking him how much he spent on cigarettes, sixpence a day was his moderate estimate. On further investigation we found this money was spent on six penny packets of cigarettes, which amounted to sixty cigarettes per day! We did not make a thorough medical investigation, but, from the carelessness of the caddying of this contributor to the national exchequer, we concluded that constitutional effects were manifesting themselves.

Excerpta Puerilia.

Child life in canal boats.—In last months' JOURNAL we had a few brief remarks about "Tramp Children." Mr. Stead's new paper, the 'Daily Paper,' gives a short account of the life of children in canal boats. It is said that there are 40,000 such children in England. At Brentford, apparently, there is a school for such children, but, as might be expected, the teaching is carried on under difficulties. The children are no sooner there than they are off again. However, amongst those attending the school are to be found, it is said, some who in very elementary knowledge are not far behind children of their own age in a board-school. Naturally in some forms of knowledge they are ahead of many of their young brothers and sisters in the towns, their opportunities for observing wild birds and animals being, as might be supposed, exceptional. It would be interesting to follow up the after-lives of some of these canal children. Scanty though their education may be, if that education is judiciously directed to the development of their minds along the line of subjects which come within the field of their observations, and consequently, if they are intelligent, of their comprehension also, there is no reason why some of them should not far outstrip many apparently more highly trained board-school children who are dwellers in back streets of large towns, where the opportunities of acquiring a wide outlook upon many phases of life must be much smaller. As we have heard so often lately, it is not facts but the knowledge of how to use them that makes the strong man. A man may in knowledge be an encyclopædia, but a useless creature for all that. Some men's minds, in fact, seem to be swamped by their facts. For not a few positions in life perhaps we may say, "Give me a man who, when a boy, was in the position of a boy in a canal boat, whose mind is not dulled by the in-cramming of over much knowledge, and is largely left free to cultivate his own intelligence by means of his eyes."

The mental training of children.—In connection with the above remarks it may be interesting to notice some of the views of Mr. G. Hamilton Archibald, who has been giving some interesting lectures on the training of children. The key-note of Mr. Archibald's lectures has been the saying of Fröbel, "Wouldst thou teach the child,

observe him ; he will tell thee what to do." All education begins, says Mr. Archibald, not with the lesson, but with the child. In the training of children in schools this must be difficult. It seems almost impossible not to put the greater number of the children more or less through the same mill. The mill may suit some, and they develop into intelligent and capable men or women. Too often, unfortunately, it is otherwise, and many of us must have seen natural intelligence and interest in acquiring knowledge dwarfed and almost killed by school life. But, unsuited though the education at some schools may be for a boy or girl, should the child be much at home, he or she should be encouraged to develop natural healthy tastes. Mr. Archibald says, "A child cannot be taught if he is not allowed to do as he pleases." There can be no doubt that if distasteful knowledge is forced into a child, the child's inbred instincts lead to the disgorgement of that knowledge as soon as possible. On the other hand, that mental food which can be taken with pleasure will be assimilated, and help to build up the strong man or woman of the future. Discouragement of a child's tastes or hobbies tends to develop a listless indifference to everything, and when time for the serious struggle of life should begin some form of excitement—it may be cricket or football,—or some trivial thing like personal attire or trashy literature absorbs almost the whole of the interest in life.

School-girl housekeepers.—The "Daily Chronicle" of January the 16th gives an interesting account of a school recently opened at Harringay, for the instruction of girls between the ages of ten and thirteen in housekeeping.

The girls are taught the correct method of making a bed, changing sheets for an invalid, or turning out the room.

Every day one girl is selected to be housekeeper, one to be marketer, one to be cook, and two to be housemaids, while the remainder of the class do extra housework, such as turning out a room, cleaning windows, pots and pans, etc., or sewing.

The little housekeeper is supposed to provide for a family of four. In the morning she receives a shilling, and with that commissions the marketing girl to buy sufficient to make a nice dinner for four persons. Sometimes, however, she is given two shillings, and has to buy sufficient for two days, so that on the second day she must pay a visit to the safe to see if she can make a satisfactory dinner out of the cold meat, potatoes, and bread she finds there.

Besides the elementary lessons of sweeping so as not to scatter the dust, bedmaking without leaving the mattress unturned, dusting

without leaving dirty finger-marks, and other little things not too well known by the ordinary domestic servant, they learn such things as the management of a sick-room, the cleaning and care of lamps, the principles of ventilation and drainage, the treatment of common ailments, the isolation of infectious diseases, how to measure and cut out garments, how to keep household books, and how to portion out small incomes to the best advantage.

The saying is, "life is made up of little things." Education of this character must do much to remove some causes of domestic unhappiness.

A useful experiment.—Under the above heading a reverend gentleman, a great despiser of doctors and all their ways, has described some of his own doings in a letter to one or two daily newspapers. It may be mentioned that we had previously noticed another letter of his, in which he denounced the iniquity of experiments upon animals. It was therefore with some surprise that a week or two later his letter, proudly announcing to the world the result of an experiment of his own, not upon animals, but upon children, caught our eye. He tells us in this letter that he has been feeding children on "biscuits and oranges." "They eat nine of the former and four of the latter per day; they drink nothing at all; and are the healthiest, happiest, bonniest children of the place." The reverend gentleman no doubt stirs both himself and his uncritical audience when he descants upon the crime of medical research, yet seems sublimely unconscious of the fact that he writes to the papers with the object of stimulating parents and others to indulge in what he himself calls an "experiment." Not a few enthusiastic opponents of science, no doubt, have been stirred to action, and as a consequence we know not how many of those children with whom oranges do not happen to agree have been "laid low" with headaches or dyspepsia. The reverend gentleman carries his opposition to science, in this instance, into contempt for anything that savours of it. When he announces his wonderful experiment that has produced such marvellous results, it is not necessary to tell us of what was the size of the biscuits, of what they were composed, or whether they were sweetened or unsweetened. Neither does he tell us whether the subjects of his experiment were fed one day, two days, three days, or how many days on the nine biscuits and four oranges a day. We naturally also, who are foolishly trained to scientific precision, cannot help feeling we would like to know what number is intended to be meant

by the word "some." "Some school-children" might be two, twenty, or two hundred. Again, we are left to imagine the age and size of these "some" children who were satisfied and flourished upon nine bisenits and four oranges. We know not whether they were three or thirteen, but it is only the foolish medical mind that trifles about such details. That unfortunate wish to know the truth which is inborn in the scientific mind makes us curious as to the condition of the "healthiest, happiest, bonniest children in the place" before the experiment was commenced. To be serious, we can only take the reverend gentleman's statement as it stands as absurd. One detail seems to be especially worthy of comment; that is, the part that the children were allowed to drink nothing. The only fluid they were allowed was that contained in the four oranges. Apparently the reverend gentleman seems imbued with the idea, possessed by some, that water is harmful. It is scarcely necessary to remark that water is the vehicle by means of which our bodies are cleansed of waste products, and not only so: the drinking of too little water may expose the body to the risk of the development of a renal calculus. Years ago, in our student's days, we remember a brilliant physician, now gone, telling us how a young girl who habitually drank too little fluid used to suffer from the passing of small calculi.

The study of children's diseases in Great Britain.—Those who, like ourselves, desire to make of children and their diseases a special study have indeed set themselves a difficult task. This fact, which is obvious enough to those in touch with matters medical, is brought into strong relief by the annual review of the *annus medicus* published in the 'Lancet' for December the 26th, 1903. There we find, extending over nearly forty of our contemporary's liberal pages, a more or less critical review of the principal work done in nearly every department of medicine and surgery. Such legitimate specialities as obstetrics, ophthalmology, public health, forensic medicine, anatomy, and physiology are fully represented, and even such relatively minor subjects as anæsthetics and dentistry are not forgotten. A special article is devoted to exotic and tropical disease. Yet on the important practical subject of children and their diseases not a single word can be found.

Physical degeneration.—Earlier we have drawn attention to a school recently started for training girls in household work. The need of such schools is emphasised by remarks in a letter by Dr. Robert

Jones, sent to the 'Times,' on the subject of physical degeneration. He says that he has in the asylum under treatment many girls from the class of factory girls. "All of these are practically ignorant in regard to household economy. They lightly consider and readily undertake matrimony, but they are absolutely incapable of bringing up children, or of cooking simple food for home consumption, preferring to fall back upon the timed enormities of local provision stores. Is it too much to surmise that the offspring of such mothers can preserve any factor of resistance to the incidence of disease, or to surmise that they contribute to the maimed, the deformed, and the degenerate in consequence?" Dr. Robert Jones goes on to say that, "domestic service, at present beneath the so-called dignity of most young women, is the only real training which enables them to become good wives and mothers; and it is to-day a languishing industry, its neglect being, in my opinion, to a great extent responsible for the high infant mortality, and for the impairment of physique and the perversion of natural development which, without doubt, is affecting the present generation, owing to the improper rearing of children." The leading article in the 'Times' which comments upon this letter of Dr. Jones and upon other letters refers to the much-talked-of question, the injury done to them by teaching them while they are under fed. It also comments upon the effect of vitiated air upon the physique of growing children, and quotes the experiment of Mr. Charles Paget, M.P., who caused "the children of the village school to be divided into two approximately equal groups, one of which spent the full number of hours in the class-rooms, while the other was sent to work during half those hours in a garden. At the end of the half-year it was found that the garden group, with only half the duration of study, surpassed the others in everything; and a similar result would probably be obtained wherever the same experiment was fairly tried." It is scarcely necessary to remark that we are not to consider fresh air as entirely, nor even mainly responsible for the superiority of the children who spent half their time in the garden. There can be little doubt that the great majority of children, as we have hinted elsewhere, are taught more than they can efficiently grasp. For their minds it were better that they were taught less, and for their bodies that they spent more time in the open air.

A child's pathetic joke.—The Duchess of Sutherland tells the following tale of a cripple's humour in her article on "The Children of the Potteries," in the 'Pall Mall Magazine':—Julia, described by the Duchess as "a little pet" of hers, when in the North

Staffordshire Infirmary, had heard the nurse told to prepare her for the theatre on the following day. She lay in bed thinking of the treat in store, but at a later date remarked to her grace that "Next time she goes to the theatre she hopes all of her'll come out of it again."

Baptismal sugar-plums.—A crusade has been started in France against the throwing of baptismal *dragées*, on the ground that the practice is calculated to spread tuberculosis. The dust- and mud-covered *dragées*, it is thought, convey to the children picking them up the pathogenic germs. Dr. Conlon is of opinion that the Academy of Medicine should interfere, and it has been suggested that the subject should be brought to the notice of mayors, who should interdict the practice. While the consumption of sugar-plums thus dispensed to French children is no doubt a danger, there can be no question that the *baby-comforters* or *soothers* so fashionable here should be banished on similar grounds. The frequent transference of the germs on floors and carpets to the mouths of nurslings and infants by these insanitary vehicles is a constant source of danger to their health and lives. Their sale should either be prohibited, or, failing this, they should be scheduled under the Poisons' Act and labelled "Poisonous."

Compulsory teaching of elementary hygiene in our public elementary schools.—A movement has been started, initiated by a body of well-known and responsible medical men and women in England, Wales, Scotland, and Ireland, which has been constituted into a committee of distribution, whose aim is to endeavour to secure that every child in our national schools shall obtain some instruction in the rudiments of the simpler rules of health and temperance. A letter has been addressed to the registered medical practitioners of England, Wales, Scotland, and Ireland, asking for signatures to the petition which is to be laid before the central education authorities of the United Kingdom. It is hoped thereby to lead all the children to appreciate, at their true value, healthful bodily conditions as regards cleanliness, pure air, food, drink, etc., and the committee of distribution are of opinion that the teaching of elementary hygiene should be *compulsory*. It points out that one of the most prominent subjects with which the various countries have found it necessary to deal is the question of the nature and effect of alcohol. Attention is drawn to the work done in other countries and the Colonies in elementary hygiene, and the petition states that the whole question is dealt with

still more completely in the United States of America. We welcome such an important and too long neglected step, and we are glad to see that medical men other than those who are more immediately interested in children's ailments are waking up to their responsibilities. We hope that all registered medical practitioners will sign this petition. Every patriotic Englishman must feel regret that this country does not take its proper place in the van of progress in all that concerns the welfare of children, and that in this as in other questions relating to children our kinsmen in the United States of America should take such a pronounced lead and that we should be behind our Colonies.

Abstracts from Current Literature.

The value of buttermilk as a food.—Otto Rommel (*Archiv f. Kinderheilkunde*, Band xxxvii, Hefte 3 and 4) recommends buttermilk as a valuable food in the gastro-intestinal derangements of infancy. It is particularly useful in acute cases, but is also valuable in the more chronic disorders of nutrition. The substance should be prepared in the following manner:—To one litre of cold buttermilk add one or two teaspoonfuls of ground wheat or rice. Heat the mixture gently, and, constantly stirring it, bring it to boiling-point in about a quarter of an hour. Add two or three heaped-up dessertspoonfuls of cane sugar, raise rapidly to boiling-point again, and then allow slowly to cool. Buttermilk in its constitution forms almost the exact antithesis to human milk. Its most striking characteristics are its strongly acid character, its deficiency in fats, the large amount of sugar contained in it, and the freedom of its casein from calcium salts. The large proportion of sugar present raises its caloric value immensely. The casein of buttermilk is in a very finely divided state. Its acidity is due to the large quantity of lactic acid present, which tends to inhibit pathological fermentative processes and preserve the casein from decomposition. At the same time the lactic acid prevents any undesirable coagulative changes later on; under the influence of the ferments of the stomach, and in the presence of the HCl of the gastric juices, it itself functionates as a peptic ferment. On the other hand, these large quantities of lactic acid tend to exercise a disturbing influence

upon the mineral metabolism of the system. This fact disqualifies buttermilk as a permanent article of food. Should its administration extend over a considerable period of time, steps must be taken to increase the fats and reduce the quantity of sugar contained in buttermilk.

E. P. BAUMANN.

Primary tuberculosis of the intestinal tract.—Heller and Wagner ('Münchn. med. Wochenschr.,' 1903, Nos. 47 and 48) believe that the intestinal tract is frequently the primary site of tubercular infection of the system. In 600 post-mortem examinations they found 28 cases of what they consider to be clearly cases of primary intestinal tuberculosis. In fifteen of these the tubercle bacillus could be demonstrated in the mesenteric glands. In the remainder the bacillus was not found, owing to the complete calcareous degeneration of the glands. Of the fifteen cases in which the bacillus was found, the disease was in eight instances confined to the intestines and mesenteric glands; in the remainder the process was not so confined, but had further involved other portions of the body. These cases show that intestinal tuberculosis in many cases remains localised, and goes on to cure without offering any serious injury to the system generally. In others the disease becomes disseminated and produces grave mischief. It is usually difficult to produce exact proofs that fairly advanced tubercular disease of the lungs has originated in a tubercular lesion of the intestinal tract. Such cases, however, the writers found to occur, and they believe that they will become much more frequent once we have accustomed ourselves to the view that primary tubercle of the intestinal tract is a not uncommon pathological lesion. This lesion occurs especially frequently in childhood. Of seventy-six post-mortem examinations upon the bodies of children ranging from one to sixteen years of age, sixteen (or 21·1 per cent.) showed primary tuberculosis of the intestinal tract. In thirteen of these the tubercle bacillus was actually demonstrated. In the remaining three cases bacteriological examination was not successful.

E. P. BAUMANN.

Tuberculosis: transmission of bovine tuberculosis by milk.—Kober ('Amer. Journ. Med. Sci.,' October, 1903, p. 684) has published a very full and valuable paper on this subject, with a good bibliography. In it he tabulates eighty-six cases of transmission, recorded from 1846 up to the present time. In many of these the possibility of transmission in this manner is very striking. In a few such a mode of infection is doubtful, and it must never be forgotten that it is

difficult to exclude other sources of infection. He refers to three cases of local skin infection, reported in 1896, as due to tuberculous milk or cream. In addition he has collected many cases of wound infection produced accidentally in making autopsies on tuberculous cattle, or by experimental inoculation. His general conclusions are that (1) tuberculosis can be transmitted by the milk of tuberculous cows; (2) tuberculous milk is most infective when the udder is diseased; (3) human tuberculosis can be transmitted to cattle; (4) possibly there are two types of the tubercle bacillus.

EDMUND CAUTLEY.

Tuberculosis of the tonsils.—Koplik ('Amer. Journ. Med. Sci.,' November, 1903, p. 816) states that the bulk of cases of tuberculosis of the tonsil occur in children. He reports a case in a boy aged 15 months, apparently primary, and dating distinctly from an exposure to infection—a visit to a grandfather with pulmonary phthisis. The parents were healthy. Both tonsils were involved; one ulcerated. Scrapings yielded large numbers of tubercle bacilli and giant-cells. The cervical glands on both sides were involved. Death ensued later from pulmonary and laryngeal tuberculosis. The affection of the tonsils may be either primary or secondary. The cervical glands are quite commonly involved. Tuberculous ulceration of the tonsil is rare. He regards tuberculous disease of the cervical lymph-glands as due to infection *via* the tonsil. The importance of examining the tonsils at autopsies is not sufficiently realised. Apart from microscopical examination, tuberculous disease may be easily overlooked, for, though giant-cells and tubercle bacilli are found, caseous degeneration is rare.

EDMUND CAUTLEY.

The serum-therapy of scarlet fever.—For many years the presence of streptococci in large numbers in cases of scarlet fever has been known to bacteriologists. Some consider the presence of this organism to be secondary to the existence of some unknown poison. Others believe it to be the primary cause of the disease. This view is shared by Moser, who discusses the question in the 'Wiener med. Wochenschr.,' No. 44, 1903. He finds strong presumptive evidence in its favour in the almost constant presence of the organism in the blood and cerebro-spinal fluid, as well as in the nose and pharynx, and in the internal organs of scarlet-fever patients. Very suggestive, too, are the results of agglutination tests showing differences between the reactions of the streptococcus obtained from scarlet-fever cases, and those of the same organism

taken from other diseases in man. Although these facts may not constitute absolute proofs, the writer believes that they are at least sufficiently striking to warrant the employment of serum-therapy. Attempts instituted in this direction by various observers have been unsuccessful. Various explanations are given for this, the chief perhaps being that Marmorek and others passed the organism through animals to increase its virulence; this may have produced some detrimental biological change in the coccus. In order to avoid the possibility of such changes, Moser prepared a serum by treating horses with various strains of scarlet-fever streptococci which had not been previously passed through other animals. The serum is injected under the skin of the anterior abdominal wall in doses of up to 200 cm. Only one injection need be administered in the course of an attack of scarlet fever. The serum has been employed in 186 cases. These were almost all severe attacks, for owing to the fact that only small quantities of the serum have as yet been available, its application had to be strictly limited. It was found that after an injection the temperature in severe cases would often fall to the normal in from four to thirty hours. In other cases a slight increase of the pyrexia would at first occur, to be followed shortly by a fall to normal. So marked a drop was, of course, not always seen in cases of some days' duration, or in cases in which there were complications. The pulse and respiration rate were at the same time diminished. The eruption often fades very quickly after an injection. A striking fact was the rapid subsidence of cerebral symptoms (apathy, delirium, etc), accompanied by an improvement of the appetite and general sense of well-being. Symptoms of gastro-intestinal disturbance were quickly relieved. Nasopharyngeal affections were influenced in the sense that the far-reaching lesions which are sometimes seen never occurred under this treatment, and any necrotic changes in the mucous membrane showed a strong tendency to heal. Complications and sequelæ occurred much less frequently than is usual. Where nephritis did set in recovery took place uncommonly rapidly.

In connection with the injection of the serum there is a certain amount of pain produced which lasts for some hours, and skin eruptions followed in 73 per cent. of the cases. This is due probably to the large quantities injected. Occasionally there also occurred joint affections, glandular enlargements, œdema, or intestinal derangements, such as diarrhœa. Even the severest of these were, however, transitory, and subsided without producing any permanent damage.

E. P. BAUMANN.

Pneumothorax.—Boivard ('Archiv. of Pediatrics,' November, 1903, p. 816) gives a table of eighteen cases, including five of his own. The age varied from six months to twelve years. Four recovered, the causes of the pneumothorax in these being trauma, pertussis, pneumonia, pneumonia and pleurisy. Of the fourteen fatal cases, the causes were measles and its complications in four cases, diphtheria and its complications in four, and one each was due to miliary tuberculosis, tuberculosis and emphysema, pertussis, pneumonia, empyema and abscess of the lung. It is most liable to occur in measles, diphtheria, and whooping-cough; the diseases in which there is a liability to bronchitis, broncho-pneumonia, and bronchiectasis.

EDMUND CAUTLEY.

Pulmonary osteo-arthropathy.—C. H. Dunn ('Arch. of Pediatrics,' October, 1903, p. 721) records a case in a boy aged 3 years and 7 months. He had had cough for a year, worse for a month, and for nine months it had been noticed that his finger-tips were getting larger. Physical examination showed extensive consolidation of the whole of the left lung, and a systolic murmur all over the cardiac area, loudest in the second left interspace. No fluid was present in the pleural cavity. The tuberculin test proved negative. X-ray photographs showed enlargement of the distal phalanges of the fingers and toes.

EDMUND CAUTLEY.

Acute primary pyelitis in infants.—Marcell Hartwig ('Berl. klin. Wochenschr.,' 1903, No. 48) records three cases of this rare condition. The clinical picture of the disease resembles that of enteric fever. At the onset there is slight pyrexia, which becomes gradually more marked, until, at the height of the disease, readings of 106° F. may be obtained; the temperature is not controlled by antipyretics. No cause is found for the pyrexia. Widal gives negative results. Physical examination yields no definite results. The condition in its early stages may suggest meningitis, but the progress of the case does not bear out this diagnosis. All methods of investigation are negative until the urine is examined microscopically, when abundant organisms and pus-cells are discovered. No renal casts are found. The urine contains albumen corresponding in amount to the pus present. The author in one of his cases arrived at a correct diagnosis only after a fortnight's observation; in the remaining cases he directed his attention to the urine after a week's observation. The urine in every case was acid. An attempt was made

to investigate the bacteriology of the condition, but owing to the fact that sufficiently fresh urine could not be used a definite organism was not isolated; a large variety was found, the *Bacillus coli communis* being represented in predominating numbers.

In the first case, which came under observation two years ago, the temperature gradually fell to normal in six weeks; a month later an abscess appeared near the angle of the jaw. This was incised and drained, and the child has been well since. Cases 2 and 3 were treated by urotropin and the oil of turpentine. Under this *régime* the urine soon cleared up, and convalescence occurred in three or four weeks.

The writer has no theory to offer in reference to the site of origin of the infection, although he tentatively suggests the possibility of intestinal infection. In view of the subsequent development in Case 1 of an abscess near the angle of the jaw, he believes that here the tonsil may have represented the original point of infection. The writer was unable to find any previous record of cases of acute primary pyelitis in infants, although instances have been described at which there was found at autopsies a condition of pyelitis. In these cases the condition was generally secondary to vulvo-vaginitis, pyæmia, etc.

E. P. BAUMANN.

Achondroplasia (chondrodystrophia foetalis).—J. Cooke ('Amer. Journ. of Obstet.,' September, 1903, p. 358) has recorded a case of this rare disease, sometimes wrongly called foetal rickets. The child, a boy, was born at seven months, and lived for about half an hour. Nothing abnormal was noted about the confinement, except a great deficiency of amniotic fluid. He was the first child of perfectly healthy parents in a good class of life, the father aged 36, the mother aged 28. As usual, the disease was most marked in the lower limbs. The head was large, the cranial bones soft, the tongue normal. The ribs were very soft, body large, abdomen distended. The arms were of normal length, but the bones were very soft. The nates were quite undeveloped, anus absent, pelvis small. The legs were about half the normal length, the joints large and partially ankylosed. The skin was thick and thrown into folds.

West and Piper ('Arch. of Pediatrics,' October, 1903, p. 730) have also published a case under the name of chondrodystrophy foetalis. The child, a girl aged 14 months, was the youngest of three children, all females. The father, aged 40, was tall and slender; the mother, aged 25, a little below medium height. The first child had died at six months. Nothing was noted abnormal in the confinement. The

child was fat at birth, and its hands and fingers were noted to be short and thick. The tongue was normal. The head suggested rickets, but the body suggested cretinism. The bones of the limbs were short but not curved. Skin was redundant. There was no improvement under treatment.

EDMUND CAUTLEY.

Congenital dislocation of the hip.—Gwyllim G. Davis ('Amer. Journ. Med. Sci.,' October, 1903, p. 608) records four cases, and discusses the statistics and results given by various surgeons. As regards the bloodless method, he states that total failures before the age of six to eight years are rare. About half can be replaced in a more or less normal acetabulum and kept there. A small proportion of these are apparently quite normal. The exact power possessed by the patient to form a new joint is a matter of doubt. Many partial repositions can be improved by subsequent osteotomy. To speak of a cure soon after reposition is ridiculous.

EDMUND CAUTLEY.

Congenital hypertrophic stenosis of the pylorus.—J. Park West ('Archiv. of Pediatrics,' October, 1903, p. 750) describes a fatal case under the title of congenital gastric spasm. He holds a view, different from most writers on the subject, that there are two kinds of case: (1) a general hyperplasia of all the tissues forming the pylorus; (2) a hypertrophy of the circular muscular fibres only, with stenosis due to spasm of these hypertrophied muscle-fibres. To this latter group he limits the name of congenital gastric spasm. He cannot differentiate his two groups on symptomatic grounds, but states that a few cases of spasm have been relieved by treatment. He very wisely recommends surgical measures for all cases. His own case was typical in its course, symptoms, and post-mortem appearances. No operation was performed. The babe, a male, commenced retching on the first day of birth, vomiting on the third day, and died on the thirty-second day. Except for an attack of diarrhoea on the third day, constipation was marked. Gastric peristalsis was slight. The pylorus could be felt.

EDMUND CAUTLEY.

Pemphigus neonatorum.—Dr. A. Pasini ('Gior. ital. delle malat. vener. e delle pelle,' vol. xlv, 1903, pp. 226 and 273) describes an epidemic occurring at the Foundling Hospital in Parma. Examination of the blood showed diminution of red globules, numerous microcytes and poikilocytes, and the presence of nucleated red cells in the

third and fourth week, which preceded the death of the patient. Polynuclear leucocytes were first increased, and subsequently the mononuclear in the proportion of 52·4 per cent. Observations with regard to eosinophilia were negative, and there was an increase in the rapidity of blood coagulation. Cultures from bullous contents showed an unencapsuled diplococcus, having special cultural characteristics, stained by aniline and by Gram's method, and identical with the diplococcus found by Demme, Claessen, and Beck. Inoculation into animals gave negative results. The epidermis under the bullæ showed no change, and the dermis was the seat of a simple vascular congestion with emigration of leucocytes, but no inflammatory alteration. In fatal cases the organs presented signs of progressive parenchymatous degeneration. The mode of introduction of the infection is through the skin, a prodromal bulla being produced locally prior to the general bullous eruption and constitutional symptoms. The author groups the malady with infective fevers like variola and varicella rather than with the pemphigus group of dermatitis. Adults are rarely infected, and always from contagion from children, the proportion being 98·2 per cent. to 1·8 per cent. It attacks with greatest frequency towards the end of the first week of life, and thence diminishes in frequency in inverse proportion to increase of age. Epidemics have almost always occurred in institutions, or in the practice of the same midwife. The affection is quite distinct from so-called syphilitic pemphigus, and is caused by the described diplococcus, in spite of the failure of experimental inoculation into animals, which is either due to immunity of animals towards the diplococcus or to spontaneous attenuation of the diplococcus in artificially produced cultures.

T. V. DICKINSON.

Correspondence.

VISCERAL CRISES IN HENOC'S PURPURA.

To the Editor of THE BRITISH JOURNAL OF CHILDREN'S DISEASES.

SIR,—The interesting articles upon cases of Henoch's purpura and the valuable editorial upon the "visceral crises" of this disease which have appeared in the first number of 'The British Journal of Children's Diseases' have suggested that the following note upon a case met with in the post-mortem room of the Bristol Royal Infirmary may not be out of place.

In November, 1899, a boy aged 3 years and 11 months was admitted

into the Bristol Royal Infirmary suffering from severe abdominal pain and vomiting. The possibility of intussusception was considered. The abdomen was distended, but not tense, and nothing suggestive of such disease could be detected on palpation. The vomiting and pain, however, continued, and two days later he was examined under chloroform, but without anything that threw light upon the case being discovered. The acute attacks soon abated, and after remaining in the institution for about three weeks, he left apparently quite well. Five weeks, however, after the onset of the first attack the pain and vomiting returned, and he was readmitted to the Bristol Royal Infirmary on the day following the recurrence of the symptoms. The pain from which the boy was suffering at that time, according to the clinical notes, appeared to be "severe." The abdomen was not distended, but was "extremely tender" on pressure. The vomiting continued and the bowels were constipated. Enemata brought away small quantities of hard fæces, which were of normal colour. The pain did not abate, and the boy became collapsed: the attack ending in death three days from the time of onset of the second attack. At the post-mortem examination nothing abnormal was found in any of the organs except the intestines. The mucous membrane of the whole length of the small intestine, of the cæcum, and of the ascending colon were intensely engorged with blood, and the intestinal wall was about three times its normal thickness, owing to hæmorrhage into its coats. There was, however, no ulceration or abrasion of the mucous membrane of any kind. The hæmorrhagic condition commenced abruptly at the junction of the jejunum with the duodenum, and ended with equal abruptness at the splenic flexure of the colon. The upper part of the small intestine contained a considerable quantity of blood in clots, and in the ileum and ascending colon blood was present in a more fluid state. The fæces present in the large intestine were of comparatively pale colour, and presented no admixture of blood. The bleeding into the lumen of the intestine must therefore have occurred not very long before death. Careful examination was made for thrombosis or embolism of the mesenteric vessels, but neither of these conditions was found. The mesenteric glands were enlarged, but not reddened. Cultures from these glands and from the spleen were taken. The bacillus coli was present in the cultures from both situations.

No cutaneous purpuric spots appear to have been noticed during life at the time of either the first or second attack, and none were seen on the body after death. For a time the case puzzled me. Although I have met with three or four cases of Henoch's purpura, it did not occur to me to connect this case with that disease. More recently, however, it has seemed to me that the only explanation of the case is that it was an example of Henoch's purpura without hæmorrhages into the skin. In other words, it was a case, resembling one period of the first of Dr. Sutherland's cases, in which there was no other evidence of liability to hæmorrhage, which occurs in the disease known as Henoch's purpura, except the hæmorrhage into the walls of the intestines. Curiously enough, however, when the boy was first admitted, although abdominal pain had been severe, there was no evidence of hæmorrhage into the intestinal canal. During the second attack also, so far as one could judge from the pale colour of the fæces in the large intestine at the time of the post-mortem examination, the hæmorrhage, at least into the lumen of the intestine, cannot have occurred very long before death. This seems to suggest that the abdominal pain, although generally associated with intestinal hæmorrhages, is not necessarily dependent upon those hæmorrhages, since it may

apparently occur before the hæmorrhages take place. It is, of course, possible to imagine that blood may be poured into the walls of the intestines without any escaping through the mucous membrane. While, however, such a possibility cannot be denied, the amount of blood present in the intestinal canal of the above case at the time of death was very considerable, and must have passed into the lumen at the same time that at least the greater part of the blood was extravasated into the coats of the intestines.

I am, Sir, yours truly,

THEODORE FISHER.

Clifton, Bristol, December the 26th, 1903.

Preparations.

Robinson's Patent Barley contains 84 per cent. of carbohydrates and 4·37 per cent. of albuminoids, with nearly 1 per cent. of fatty matters; and microscopical examination shows the flour to be the purest farina of the barley. It is an excellent preparation for making ordinary barley-water. A thin demulcent made from this barley acts as a diluent of cow's milk, and, by rendering the casein of the milk flocculent when precipitated by the gastric juices, it is a useful adjunct in cases of difficult infantile digestion in bottle-fed babies during the early months of life.

Robinson's Patent Groats contain 75·70 per cent. of carbohydrates, 7 per cent. of albuminoids, and 8·18 per cent. of fatty matters. When the proper time has arrived to feed the nursing on cereals, Robinson's Patent Groats can be well recommended as a suitable and reliable preparation to add to cow's milk.

Ferroleum is a palatable and well-prepared creamy-looking emulsion. A strong point in its favour is the fact that there is no secret as to its composition. Its proprietors give the formula, and chemical analyses bear witness to the truth of their statement. Ferroleum is a distinct advance on a crude combination of cod-liver oil and iron which for years has been a favourable and valuable prescription for children attending the out-patients' departments of children's hospitals, and for others. In rickets and in various wasting diseases of childhood it should be welcomed as an old and well-tried friend in a new and greatly improved form.

Maltico is a fine yellow powder, 90 per cent. of which is readily soluble in water, and it has been designed for the feeding of infants. It is prepared, according to its manufacturers, from "the best and purest milk and the extracts of various nutritive malted cereals," and it only requires the addition of hot water to make it ready for immediate consumption. The original starch, of which not a trace was found on analysis, is converted into sugar derivatives by the action of diastase. The milk fat and albuminoids which enter into the composition of Maltico are of approved nutritive value, and the absence of starch from the dietary is of no small importance to the new-born.

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Original Articles.

ON MENTAL DEFICIENCY IN CHILDREN.

By G. E. SHUTTLEWORTH, B.A., M.D.,

Medical Expert, Rochester House Institution for Improvable Imbeciles, Metropolitan Asylums Board; Consulting Medical Officer, National Association for the Welfare of the Feeble-minded; formerly Medical Superintendent of the Royal Albert Asylum, Lancaster.

IN the present article it is proposed to set forth some of the leading characteristics of typical groups of mentally defective children, and to show their relations to diagnosis and prognosis, with remarks upon their etiology and pathology. In conclusion will be submitted some suggestions as to treatment and training.

The term *mental deficiency* is intended to include the several degrees of departure from the normal mental development of the child which are included in the terms idiocy, imbecility, and feeble-mindedness. The connotation of these terms respectively varies somewhat in the writings of different recognised authorities on the subject; and of late years there has been a benevolent but somewhat confusing tendency in this country—as previously in America—to use the word “feeble-minded” in a sense inclusive of the lower

grades of mental defect. While it must be admitted that feeble-mindedness, imbecility, and idiocy are but gradations in the severity of mental deficiency, and respectively denote a difference not of kind, but only of degree, it is certainly convenient to retain distinct terms to mark the gradations, both for scientific and sociological reasons. *Amentia* is, indeed, the inclusive scientific term, indicating a generic difference between *minus* conditions of mind dating from birth, or from so early an age as to preclude any previous definite manifestation of mental development, and the degenerative processes of dementia in later life; while insanity, which causes a perversion of developed mental faculties, though it may occur in childhood, stands in an entirely different category.

By far the larger number of cases of amentia essentially date from a period anterior to birth. This statement is, of course, at variance with what most parents are willing to admit, for they are naturally reluctant to recognise any tendency in themselves to the production of defective offspring. From certain statistics given in institution reports it would seem that the non-congenital outnumber the congenital cases; but a closer scrutiny of the statements made by parents, and subsequent acquaintance with the relatives, would demonstrate that many cases reported as acquired are in their essence congenital. To take one instance, eclampsia (infantile convulsions) is stated to have occurred in 32·58 per cent. of 1200 cases examined at one large institution; but it is very obvious that fits are readily assigned by parents as the cause of mental impairment when in truth they are but one of the evidences of innate nervous instability. Feeble-mindedness is frequently attributed to falls, though the true etiology will point to an antecedent condition of abnormal nervous impressionability, which is the more important factor. Not a few children suffer from infantile convulsions with no resulting mental enfeeblement, and probably the majority have falls, even on their heads, which, with a previously sound brain, do not produce traumatic imbecility. The primary division of cases of mental defect in children into—

(1) *The congenital or primary class,*

(2) *The non-congenital, acquired, or secondary class;—*

requires, therefore, to be made with much discrimination and caution.

From the pathological standpoint conditions of imperfect or irregular cerebral and nervous development must be carefully distinguished from those of premature degeneration. The latter, occurring early in life (as, *e.g.*, in some cases of infantile paralysis),

produce mental enfeeblement interfering with capacity for education which for practical purposes may be classed with amentia, though similar degenerative changes at a later period would tend to dementia.

Looking more closely at the so-called congenital class of cases, we shall find that it really consists of two groups, viz. (a) *those due to causes acting prior to birth*; (b) *those due to causes acting at birth*. With regard to the first group, we must necessarily consider the important subject of heredity; and in the most recent investigations—those of Dr. A. F. Tredgold,* who had the opportunity of scrutinising by personal inquiry the family history of 150 defective children in the pauper asylums of the county of London—it was found that in as many as 90 per cent. some adverse hereditary influence could be traced. So limited a number of cases affords, however, a slender basis for generalisation; and an examination of case-books, carefully compiled and revised in the light of experience,† with regard to 2380 children under the care of Dr. Fletcher Beach and the present writer at Darenth and the Royal Albert Asylum respectively, gave the following factors (in many cases concurrent) as present in the family histories, viz.:

Phthisical family history	. . .	28.31 per cent.
Hereditary mental weakness (insanity, imbecility, etc.)	. . .	21.38 „
Epilepsy, or other marked neurosis	. . .	20.00 „
Intemperance in parents (alcoholic)	. . .	16.38 „
Consanguinity in parents or grandparents	. . .	4.20 „

Syphilis, commonly supposed to be a frequent cause of degeneracy in offspring, figured but insignificantly in these statistics, only to the extent of 1.17 per cent. of cases in which there were stigmata of inherited syphilis, or parental syphilis had been ascertained; but parents do not readily admit such a cause, and many syphilitic children die before attaining the age for institution treatment.

Passing to the second group, *those due to causes acting at birth*, we find in the statistics above referred to, the following figures:

Premature birth	. . .	3.52 per cent.
Difficult birth	. . .	17.55 „

Instrumental delivery is recorded in 3.31 per cent. of the cases, and asphyxia neonatorum was noted (by Dr. Beach) in 12.96 per cent. In 1.51 per cent. some accident to the child occurred, due probably to precipitate labour, and in 0.96 per cent. the imbecile was

* Mott's 'Archives of Neurology,' vol. i, p. 328 *et seq.*

† Hack Tuke's 'Dict. Psych. Med.,' vol. ii, p. 664.

one of twins. In 20·67 per cent. the imbecile was the firstborn of a family. Did space permit, it would be easy to show that the conditions of the mother leading to premature, difficult, or precipitate parturition were really the original cause of the trouble; and, in passing, one may just note that our statistics show that judicious forceps delivery is less harmful as regards mental impairment in the child than is unassisted, unduly prolonged labour. Primogeniture, which was noted in but little more than one fifth of the cases, cannot be regarded as a serious factor, for the average size of the families investigated was more than five.

It has already been stated that the non-congenital (or acquired) class of cases is much smaller than parents would have us believe. The more conversant one becomes with the histories of patients and their families, the stronger one's conviction grows that the accident, the illness, or the shock to which the mental defect is attributed, is but an incident in most cases, and not the original cause of the mental defect. The late Dr. Langdon-Down recognised this view, and suggested the term *developmental* to cover cases reputed to date from some crisis of development, *e. g.* the first or second dentition, pubescence, etc. Following the statistics already quoted, we may give, subject to the above considerations, the following percentages :

Eclampsia (infantile convulsions)	27·39 per cent.
Epilepsy (Darenth statistics)	11·52 „
Infantile, etc., paralyses	0·92 „
Traumatism (injury to head)	6·17 „
Fright or shock (mental)	3·06 „
Sunstroke	0·54 „
Febrile illnesses with brain complications (meningitis, atrophy, etc.)	5·96 „

We have already remarked on the significance of infantile convulsions, and similar criticisms would be appropriate with regard to many of the causes scheduled above. Over-pressure at school was an assigned cause in only 0·16 per cent. of the 2380 cases.

We must now cursorily glance at the typical groups into which mentally defective children may be divided. Some of these have definite physical characteristics, a knowledge of which is very helpful in prognosis, but it is not pretended that these are present in all defective children. Speaking generally, there is a lack of normal physical development, as of mental, in this class; and functional as well as organic defects characterise their nervous system. Broadly looking at mental characters, we may divide all mentally defectives into two large classes: (1) *those with under-acting nervous systems;*

(2) *those with over-acting nervous systems*; in other words—(1) *the dull and apathetic*; and (2) *the nervous and excitable*. In the former class (*e. g.* in the cretin), nerve-centre reaction-time is slow; in the latter, nerve is unduly irritable, tending to explosiveness, and ill-controlled. Highly neurotic and epileptic cases are instances. Want of power of sustaining attention is the common psychical characteristic of both classes. In the first it depends upon defect of energy; in the second, upon defect of inhibitory power.

Perhaps the larger number of cases of mental deficiency are not so much characterised by typical physical abnormalities as by a

FIG. 1.



departure in some way or other from the standard of development of normal children of similar age. In many may be discovered the so-called stigmata of degeneration, such as puny growth, ill-proportioned features, out-standing pointed ears, deformed jaws and palates, hare-lip, and traces of persistent foetal structures such as epicanthic folds. Congenital heart-disease, with patulous foramen ovale, is not uncommon. Then there are faults in form and finish of the skull, and sometimes in addition, of the integumentary structures. Associated are defects of mental action—*e. g.* lack of "taking notice" in early infancy, and of speaking at the usual age—which gradually arouse anxiety; and in neurotic cases there is much

irregular or ill-regulated muscular movement. Such are the general features of the large group of primary mentally defectives called by Ireland "genetous," but perhaps preferably designated (as suggested by Tredgold) cases of "simple primary amentia."

There are, however, certain types which can be separated from the general mass of congenital cases by distinctive physical features. The first to be mentioned, as in this the diminutive and imperfectly shaped head testifies to arrest of development, is the *microcephalic*.

FIG. 2.



No arbitrary standard of measurement (*e. g.* a cranial circumference less than 17 inches, as has been proposed) is applicable to these cases, for peculiarity of form, such as is seen in the illustrations, (*e. g.* a rapidly receding, laterally ill-developed forehead, a somewhat pointed vertex and flattened occiput), is constantly associated in this variety with relatively reduced cranial dimensions (see Fig. 1). Contrasting with this we have the distended skull of the hydrocephalic type, some cases of which are of intra-uterine origin (see Fig. 2). But perhaps the most remarkable, as it is the most uniform, of all the types of primary amentia, is that designated Mongolian (Fig. 3). Without concerning ourselves with the theory of ethnic

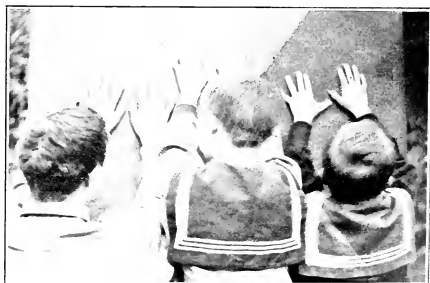
degeneration, which induced the late Dr. Langdon-Down thus to designate this variety, we cannot fail to observe in English-born

FIG. 3.



cases of this type a certain physiognomical resemblance to the denizens of the Far East. The skull is a short oval flattened posteriorly.

FIG. 4.



The palpebral fissures are often obliquely set and of almond shape; the nose is squat, usually flat at the bridge, with distended cartilages. The hands are often as broad as long, the

fingers being stumpy, and the little finger sometimes incurved towards the ring finger (see Fig. 4). There are also tegumentary defects: the skin is coarse, even furfuraceous; the hair of darkish tint, "wiry" in appearance. The mucous membrane of the lips is often cracked, and the tongue, which is large, marked with transverse fissures and presenting hypertrophied papillæ. Adenoids are

FIG. 5.



frequent. Children of this type seem to be more liable than others to cardiac imperfections; in fact, the whole bodily structure points to a lack of finish.

Another type of mental defect with very definite characteristics is that of sporadic cretinism (see Fig. 5), or (as Bourneville designates it) "myxœdematous idiocy." If not absolutely of primary origin, its symptoms develop so early in life that it may be classed as congenital, especially as it depends upon formative defect of the thyroid gland. The characteristics of this type are slow reaction and response, with dwarfed body, baggy skin, tumid abdomen (with frequent umbilical hernia), bowed legs, broad squat hands and feet.

The square-looking skull expanded laterally often reveals a depression over the site of the anterior fontanelle. The nose is short, often *retroussé*; the lips lax; and the tongue, enlarged, with thickened tip, is apt to project beyond the teeth. There is a malar blush in most cases. Growth is slow, and all the bodily and mental functions are notably retarded.

A passing reference may here be made to the class of achondroplasias, mistaken sometimes for cretins, but not necessarily mentally deficient. Symington and Thomson* define achondroplasia as "an absence, arrest, or perversion of the normal process of

FIG. 5.



endochondrial ossification of the most definite and universal character in every element of the skeleton in which the normal process usually takes place during intra-uterine life." These are usually intelligent but short-limbed dwarfs.

Before proceeding to cases of post-natal origin, we must look at the group which we may conveniently include under the name of cerebral infantile paralysis (Fig. 6). In these cases the degree of mental impairment varies considerably, varying probably with the extent of meningeal hæmorrhage at the time of birth. "Birth-palsies" have, indeed, been attributed by Gowers, McNatt, and others simply to

* Symington and A. Thomson, 'Lab. Rep. R.C.P.Ed.,' 1892, vol. iv, p. 238.

pressure and hæmorrhages at the time of birth; but Collier* shows that in many cases of diplegia congenital predisposition, as well as marked maternal states, play an important *role*. Cases of infantile cerebral palsy naturally fall into the four varieties of hemiplegics, paraplegics, diplegics, and monoplegics, spastic conditions of limbs being found in each, with degrees of mental impairment by no means proportional to the physical defects.

Eclampsic cases occupy, for the reasons previously stated, a borderland position between the congenital and non-congenital class. It is not always easy to say whether they are the result or the cause of a damaged brain, but anyhow we may regard them as elements in a vicious circle. Epileptic cases fall very much under the same category, though the fits may not appear until a developmental crisis, *e. g.* second dentition or puberty.

Traumatic cases, again, for the most part owe their real origin to predisposition. The mental impairment varies very much in different cases, and in some may be very mild indeed, amounting, perhaps, simply to backwardness or eccentricity.

Similar considerations apply to cases attributed to fright or shock, and to sunstroke.

Meningeal and encephalic inflammations of toxic origin occurring sometimes in the course of acute febrile attacks, sometimes independently, are doubtless responsible for many cases of impaired brain action; whilst others are classed by Bourneville as due to (1) parenchymatous encephalitis and to (2) atrophic sclerosis.

Mention must be made of the hypertrophic variety of idiocy—to be carefully distinguished from hydrocephalus—described by Bourneville as *sclérose tubéreuse*. Limit of space will only permit a passing reference to the family type of infantile cerebral degeneration designated amaurotic idiocy.† Various cerebral malformations and deficiencies, pathological as well as formative—*e. g.* porencephalus,—can here be referred to only as occurring in a certain number of cases of mental defect.

One typical class of cases occurring in childhood and youth, though comparatively rare, is of great pathological interest, *viz.* those of recent years included under the title of juvenile general paralysis, though described so long ago as 1883 by Dr. Judson Bury‡ under the more exact name of hereditary syphilitic dementia. In these cases endarteritis seems to lead to cortical sclerosis and

* 'Brain,' vol. xxii, part 3, p. 373.

† See 'Med.-Chir. Trans.,' vol. lxxx, p. 87. (Paper by Kingdon and Risien Russell).

‡ 'Brain,' part xxi, p. 416 *seq.*

atrophy of brain-cells. Though the typical stigmata of inherited syphilis are not always to be found, the family history (when fully investigated) will generally show the probable existence of such taint.

In referring to the types we have said but little of the mental symptoms, because it will save space to consider them in relation to diagnosis and prognosis.

First, we may remark in a general way that congenital cases are more likely to present stigmata of degeneration than those truly accidental, though the absence of such stigmata is by no means conclusive of the case being non-congenital. As regards prognosis, Dr. Langdon-Down's* words may be quoted, that it is hopeful, "contrary to what is so often thought, inversely as the child is comely, fair to look upon, and winsome." As a rule there is more prospect of improvement in a case of simple arrested development than in one of structural brain lesion.

With regard to what appears to be a simple case of primary amentia—*i. e.* one not presenting any typical physical peculiarity,—we shall be wise to note the points of difference, both in physical and mental development, between the patient and a normal child of similar age, as our diagnosis will have to rest upon the comparative retardation of the mental and bodily faculties. A baby who does not take notice at the usual time and seems to have no desire to hold up its head or to use its hands or feet, is, if not incapable merely on account of physical debility, usually mentally defective. As the time for walking and talking goes by without any effort to use its limbs and to speak, the nature of the case becomes more obvious, and the prognosis will depend upon the degree and depth of incapacity. Family history—*e. g.* neurotic inheritance—will also help us. If, however, the size of head be notably small—say at six months 15 inches instead of 17—and the form characteristic, we diagnose microcephaly; and in this case we may prognose fair development of the sensorial and muscular powers, but little concentration of thought, and a mental capacity limited by the defective development of brain. In hydrocephalic cases, if active mischief have subsided, though the child is backward in walking and talking, and may be subject to fits, the degree of mental impairment may not be very marked, and considerable improvement may result under suitable training. Mongolian imbeciles are not infrequently confounded with cretins, but they are more vivacious than the latter, their skin is not a loose investment as in cretinism, and they have more or less obliquely placed palpebral

* 'Obstet. Soc. Trans.,' vol. xviii.

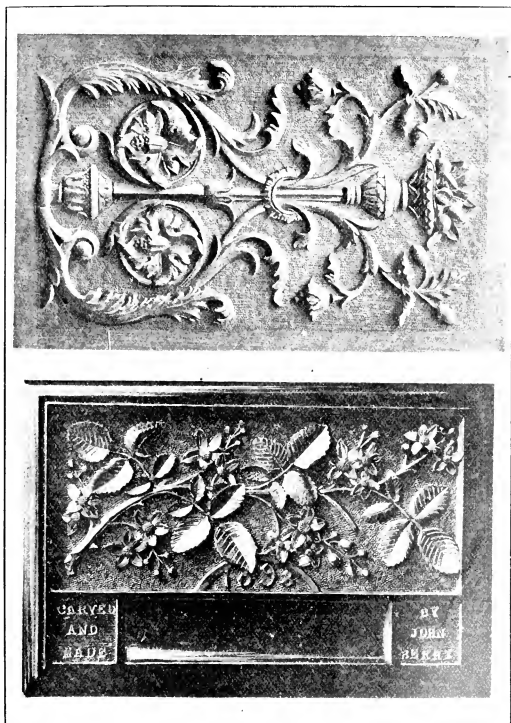
fissures (which cretins have not), and Mongols have frequently a well-marked epicanthic fold. Cretins have no thyroid gland, but sometimes fatty tumours in the posterior triangles of neck. Both have large tongues, often protruding, but typical Mongolian tongues are transversely fissured, while the cretin tongue is simply coarse. The cretin head is larger than the Mongolian, flattened often over the position of the anterior fontanelle. Mentally the Mongol is fairly responsive, at any rate expressing himself in a few words in a gruff voice; he is fond of music, and will beat time, and is notoriously imitative. The cretin (untreated) has been well compared to a "toad-like caricature of humanity," responding very slowly, if at all, and functionally inactive. As regards prognosis, the Mongol will be capable of some amount of instruction by imitation; the cretin of none, until subjected to thyroid treatment, when he will progress more rapidly than the other. But the range of improvement is probably limited in both, and the simply convoluted brain of the Mongol corresponds with a simple intelligence characterised by an entire lack of initiative.

With regard to the class of cerebral infantile paralytics the diagnosis is fairly clear, and the mental prognosis—varying with the severity of the physical symptoms—is in many cases much more favourable than these disabilities would seem to indicate. Indeed, hemiplegics not infrequently learn to read, write, and calculate; and, what is more surprising, to handle tools with considerable skill. As an illustration of this statement the case of a hemiplegic youth for eight years under the observation of the writer at the Royal Albert Asylum, Lancaster, may be briefly cited. Admitted in 1885, when twelve years old, the subject of right hemiplegia with athetosis attributed to injury at birth, he rapidly developed graphic abilities in spite of his physical drawbacks, and after a course of scholastic instruction in writing, drawing, reading, etc., with suitable physical and manual exercises, he was trained to wood-work in the joiner's shop, where he gradually attained such control over his irregular movements that he became an expert workman, making tables, chests of drawers, and decorative sideboards. He showed a nice taste for wood-carving, and ultimately became so skilful in it that he is now employed as instructor in this art, and he is also a clever scene-painter. He is now practically ambidextrous, his right hand having been trained to be serviceable. The annexed illustrations (Figs. 7 and 8) of panels, not only carved but designed by him (the block for which has been kindly lent by the authorities of the Royal Albert Asylum) demonstrate what may be done in such cases by judicious training.

Eclampsic and epileptic cases are readily diagnosed. The degree

of mental impairment varies considerably in individual cases, and improvement depends very much upon the cessation of the fits.

FIGS. 7 and 8.



Persistent "*petit mal*" is even more prejudicial than occasional severe fits.

As a rule, the mental deficiency which results from the various

forms of meningeal and encephalic inflammation is unfavourable as regards prognosis. Juvenile general paralysis is progressive, and usually terminates fatally in the course of four or five years from its onset.

A very cursory glance at the principles of treatment and training must conclude this paper.* First improve by all known methods the physical conditions of the patient, removing, as far as practicable, all obstacles to brain activity that are removable. Errors of refraction, of audition, must be remedied if possible; adenoids, present in so many cases (and especially in those of Mongol type), must be extirpated. The muscular system must be exercised and disciplined in view of known incapacities, the senses methodically cultivated, the personal habits regulated, and continuity of attention encouraged by attractive occupations, such as those of the kindergarten. Physical and manual training are for this class the keys of the intelligence. For the less defective a modicum of adapted school work—such as may be seen in “special schools”—will be appropriate if due regard be paid to the avoidance of fatigue. The lessons should, however, be mainly objective, and mere exercises of memory without understanding are worse than useless.

Though teaching of mentally deficient children must be largely individual, it should not be solitary, and social good qualities are best promoted by instruction with other similar children. Moreover a mentally deficient child, of whatever grade, is usually more easily and judiciously dealt with by teachers outside his own home, where there is often unconsciously a prejudicial reaction on the part of the parents, however well-intentioned. Of course, all engaged in the training of such a child, whether nurse, teacher, or doctor, must know how to obtain the confidence of the little patient, and to be successful such work must needs be a labour of love.

A CASE OF POST-BASAL MENINGITIS DUE TO THE PNEUMOCOCCUS LANCEOLATUS; RECOVERY.

BY J. PORTER PARKINSON, M.D.,

*Physician at the North-Eastern Hospital for Children, and at the London
Temperance Hospital.*

ANTHONY T—, aged 2 years and 2 months, was admitted into the London Temperance Hospital under my care on September the 4th,

* For details see Shuttleworth's ‘Mentally Deficient Children,’ 2nd ed., pp. 85 to 129.

1903, with a history of four days' illness with fever, vomiting, and cough.

On admission the temperature was 104.8° F., pulse 141, and respirations 70 per minute; and there were definite signs of pneumonic consolidation at the apex of the right lung both before and behind. The child was small for its age, its weight being 15 lbs. 9 oz. It was rather fretful, and had some cough. The forehead was rather unduly prominent, the anterior fontanelle admitted the tip of the finger, there were sixteen teeth, and general signs of rickets. The abdomen was swollen, with slight enlargement of the liver and spleen; while five or six loose, offensive, green motions were passed daily. Between the 6th and 8th of September the temperature descended, but only to rise again to 103° on the 10th; from this time for the following fortnight the temperature still remained raised, as a rule between 99° and 101° F. The physical signs in the right lung persisted till early in October, when they gradually resolved.

About September the 15th rigidity of the muscles at the back of the neck, which had been noted for the week previously, was found to be increasing, drawing the occiput well downwards; and gradually complete opisthotonos of the trunk muscles supervened, the legs being rigid and extended, the arms rigid, flexed at the elbow, with forearms pronated and fingers flexed over the adducted thumb. The patellar reflexes could just be obtained, and Kernig's sign was not well marked. The fontanelle was slightly bulged, and the fundus of the eye showed no abnormal changes.

On September the 18th half an ounce of clear fluid was withdrawn from the spine by lumbar puncture by Mr. Rhodes, senior resident medical officer. It was forced through the hollow needle under increased pressure, and was clear, forming a flocculent cloud later on. It contained a trace of albumen. A portion of the fluid was stained with methylene blue, and showed the *Diplococcus lanceolatus* with its characteristic capsule; the same organism was found in pure broth culture from the same fluid. There were no intra-cellular organisms. The condition of the child remained unchanged, the opisthotonos continuing very marked for about five weeks, and during this time the sight appeared to be lost, and there was no closure of the lids on rapid approach of the fingers to the eyes. The diarrhoea continued, and there was infrequent vomiting. The temperature remained slightly below normal during this period. There was no ear discharge at any time, and the membranæ tympanorum were normal.

The lung signs gradually cleared up, and disappeared by the end of the first week of October.

In the early part of November the opisthotonos gradually diminished and the sight returned, the child becoming interested in his surroundings, till during the second week he began to sit up in bed, and developed that voracious appetite which was described by Mr. Stephen Paget as sometimes occurring after cerebral injury or disease. At the present time he appears to have entirely recovered, and shows no traces of disease, either physical or mental.

The chief interest of this case lies in the fact that the cerebral symptoms, though clinically they were those of a typical case of posterior basic meningitis, appear to have been due to the *Diplococcus lanceolatus* and not to the *Diplococcus intracellularis*, as a pure culture of the former micro-organism was obtained from the spinal fluid. Most of the cases of pneumococcal meningitis complicating pneumonia affect chiefly the vertex of the brain, and they are said to be invariably fatal; but this case appears to show that the inflammation may be chronic and situated at the posterior part of the base, and that recovery may be possible. The whole case turns upon the identification of the micro-organism obtained by lumbar puncture, but the identification of this by an expert appears to be complete. Cerebral symptoms during the course of a pneumonia, especially when affecting the apex of the lung, are comparatively common, and, but for the discovery of an organism affecting the nervous system, this case might have been supposed to belong to that category; but in such cases the cerebral symptoms generally appear earlier in the disease, and their duration is shorter. In this child the definite cerebral symptoms did not appear till a fortnight after the commencement of the illness, and their commencement was signalled by a further rise of temperature, which continued for ten days, while their duration was six weeks.

This case also illustrates the value of lumbar puncture in cases in which cerebral symptoms appear during the course of other diseases, and it is useful in such cases to distinguish reflex nervous symptoms from those due to organic disease in the central nervous system. It is very probable that such complications are not as rare as has been hitherto supposed, for bacteriological examinations of the spinal fluid in the cases which recover have not been often recorded.

A NOTE ON THE COMPARATIVE MORTALITY OF BREAST-FED AND HAND-REARED INFANTS.

By HUBERT ARMSTRONG, M.D.,

Assistant Physician to the Infirmary for Children, Liverpool.

A SHORT time ago, at the request of our Assistant Medical Officer of Health, Dr. Musson, I started an investigation among the mothers of my out-patients at the Infirmary for Children, with the view of attempting to find out the different proportions in which the babies of this city at the present time were being suckled and hand-reared. This failed to reveal anything of value, since it was soon evident that the comparative numbers of the latter were being augmented by the fact that so many of them were brought up for disease, incident to dietetic errors, from which the breast-fed infants escaped. However, I continued my inquiries in a slightly different manner, asking each woman on her first attendance how she had reared ALL her children, the ages at which those not now living had died, and the cause of their death. Below I give a synopsis of the results.

The children were divided into four classes :

Class 1.—Those wholly breast-fed up to six months or over.

Class 2.—Those breast-fed up to the same age with the addition of other “foods,” cow’s milk, biscuits, and so on.

Class 3.—Those entirely hand-reared from birth or shortly after.

Class 4.—Still-births, and those dying within twenty-four hours of birth.

The last are ignored entirely. It proved impossible in the third class to differentiate between those fed on rational lines and otherwise.

The interest lies in the comparative death rates. The actual rates would be low for Liverpool, but in the first year the excluded cases must be remembered, and after that the varying ages of the subjects, and the fact that they were not all born and bred in the city, render the figures absolutely valueless as “vital statistics.” Spread over a number of years, the only points in common to the children are that they belonged to the lower classes and were reared in the different ways described.

224 mothers had 1000 children (still-births, etc., excluded). Of these there were in :

Class 1.—689,

Class 2.—127,

Class 3.—184,

and 199 had died at varying ages, distributed as follows :

Class 1.—119 or 172·71 per thousand.*

Class 2.— 24 or 188·98 „

Class 3.— 60 or 326·09 „

Exclusive of the uncounted deaths within the day of birth, the following table shows the deaths in each class during the first year :

Class 1.— 58 or 84·18 per thousand.*

Class 2.— 17 or 133·86 „

Class 3.— 42 or 228·26 „

— — — — —
Total—117 or 117·00 „

During the second year there died :

Class 1.—25 or 39·62 per thousand.*

Class 2.— 4 or 36·36 „

Class 3.—14 or 98·58 „

subject to the error dependent on a certain number of the children being still in their first year. For a similar reason the rates for later years would be so inaccurate as to be worthless.

The causes of death as given by the more or less ignorant mothers are not tabulated. It is clear enough that the artificial feeding shows itself as the primary cause of intestinal disease and wasting in the first year, and that its debilitating effects, as evidenced by rickets and lung complications, and the inability to withstand the usual children's ailments such as measles, has not worn off in the second. There was a larger proportion of deaths of premature infants and from surgical accidents among the breast-fed than the others, whose exclusion would render the differences still more marked.

The figures are not presented as having any other value whatever than to point the oft-repeated moral that no child should be taken from the breast without the gravest consideration as to the absolute necessity of the procedure either to the mother or the baby. Regrettable as it is to see mothers who will not nurse their infants, it is even more so to frequently find babies deprived of their natural sustenance under medical directions, on account of some trivial ailment or passing dyspepsia which is only aggravated and confirmed by the change of diet. A certain number there will always be who are compelled to run this additional risk of an early death. Let us see that we do not add more to them than can possibly be avoided.

* *I. e.* per thousand of children in each class, and in the last table after deducting the deaths in the last but one.

A FATAL CASE OF STAPHYLOCOCCUS MOUTH INFECTION
(ULCERATIVE STOMATITIS) FOLLOWING MEASLES
IN AN INFANT.*

By DAX MCKENZIE, M.D.,

Assistant Registrar Central London Throat and Ear Hospital.

THE course of events in the following case affords a striking instance of the oft-noted lack of resistance to the invasion of certain organisms induced by an attack of measles.

K. H—, a healthy, well-nourished girl of eighteen months, was attacked by measles on March the 2nd, 1903. The illness ran a moderate course, free from complication.

On March the 29th I was sent for on account of pyrexia reaching 104° F. with a rapid pulse. There was a general blush of the skin resembling somewhat the rash of scarlet fever, but not definitely punctate in appearance. There was no sore throat. A general moderate enlargement of all the accessible lymphatic glands was observed. The mother had noticed some blood in the sputum, which she had supposed to come from the chest. No consolidation of lung was found, and there was no dislocation of the pulse-respiration ratio. The temperature and rash persisted for three or four days, the rash gradually fading, and the temperature falling to normal rather rapidly at the end of that period. During the next eight days the temperature was subfebrile (from 97° to 99·8° F.) Then it gradually rose to 102° F. By this time (April the 18th) a fine branny desquamation was visible. The lymphatic glands had gone back to the normal size, with the exception of two submaxillary glands on the left side, which were still large and hard to the feel. On the alveolar margin of the gum above the left lateral incisor of the upper jaw a small round ulcer was discovered, about three millimetres in diameter, with a grey rough floor and undermined edges, surrounded by an areola of red and swollen mucous membrane. During the next few days the temperature remained high, the alveolar ulcer slightly increased in size, and the submaxillary lymphatic glands became larger and semi-fluctuant, while the periglandular tissues were hard and infiltrated. On April the 24th, under chloroform, the glandular abscess under the jaw was opened and scraped, about a tablespoonful of thick pus being evacuated. The ulcer on the gum

* Read before the Society for the Study of Disease in Children, February the 19th, 1904.

was scraped with a sharp spoon, and the broken down tissue, which considerably exceeded the limits of the ulcer, reaching down to the periosteum, carefully removed. The resulting raw surface was painted with carbolic acid.

Next day there was a recurrence of the roseolous rash which marked the beginning of the illness, together with a rise of temperature to over 104° F. The case was further complicated by the occurrence of diarrhœa, which continued henceforth throughout the whole course of the illness. The events of the following month showed that little or no good had been effected by the surgical measures adopted. The submaxillary abscess cavity certainly slowly filled up, but the ulcer in the mouth gradually increased in extent and depth, while no reduction in the height of the temperature occurred. Strangely enough the child's general condition at this period underwent marked improvement, probably owing to the excellent nursing and to the ability of the patient to take and digest large quantities of nourishment.

On the 22nd of April the alveolar ulcer was again scraped and painted with carbolic acid. It was found to extend from the alveolar margin of the gum above the first and second incisor and canine teeth to the junction of the mucous membranes of the gum and cheek, a very considerable increase in extent.

On May the 2nd, ten days after the appearance of the second roseolous rash, desquamation was observed.

On May the 7th the ulcer was scraped for the third time. By this time, although the abscess cavity under the jaw had filled up and the wound seemed about to cicatrise over, there had been no absorption of the dense infiltration surrounding the enlarged glands, and the whole of the submaxillary region on the left side was occupied by a hard brawny mass, which extended across the middle line beneath the chin. There was also some enlargement of the submaxillary lymphatics on this side. The left cheek was red and cedematous, and the breath foul. A day or two later the wound became infected.

On May the 16th the red rash appeared for the third time, and was followed in due course by desquamation. During the next six weeks the local conditions underwent a very slow but marked improvement. The ulcer in the mouth ceased to spread, the cheek grew less inflamed, and the submaxillary induration showed signs of being absorbed. But the wound enlarged by a process of disintegration of the subcutaneous connective tissue.

On June the 17th the final stage was reached when the patient

gave evidence of intra-cranial mischief in the form of sickness and vomiting, with transient lapses of consciousness, photophobia, retraction of the head, and stiffening of the erector spinae muscles, while emaciation progressed rapidly. In a few days a passing paresis of the right arm and leg appeared (June the 23rd). Then clonic convulsions lasting twenty-four hours occurred, followed by coma, gradually deepening into death on June the 28th, three months after the onset of the illness.

A post-mortem inspection of the brain only was permitted. The cerebral symptoms were found to have been caused by sinus thrombosis.

A culture taken post mortem from the alveolar ulcer showed the *Staphylococcus pyogenes aureus*.

The treatment of the case consisted in the exhibition of iron, arsenic, cinchona, and remedies to meet the various complications as they arose. Potassium chlorate was tried at two different times, once in three-grain doses four times a day for six weeks, but no good effect followed its administration.

Antistreptococcus serum was injected, 10 c.cm. at a time, six times in all between May the 19th and June the 15th, generally without any distinct result, although once or twice a severe reaction with urticaria and restlessness occurred.

The roseolous rashes were presumably due to systemic infection from the infected localities. The heart and lungs remained unaffected throughout.

Mr. Jonathan Hutchinson, jr., reported some years ago a somewhat similar case to this one, in which, however, death seemed to have been directly induced by miliary tuberculosis. In his case, a child of twenty-one months, the ulcer or ulcers in the mouth persisted for nine months.*

The Society for the Study of Disease in Children.

A MEETING of this Society was held on January the 15th, 1904, at 11, Chandos Street, Cavendish Square, W., Dr. PORTER PARKINSON in the chair.

A Case of Transposition of the Viscera in a girl twelve years of age was shown by Dr. ERIC PRITCHARD. Examination showed that the heart, the

* 'Path. Soc. Trans.,' Lond., 1887, vol. xxxviii, p. 127.

liver, the stomach, and the spleen were transposed. The child had been delicate since birth, and had at one time been treated for enlargement of the spleen, owing to the liver having been mistaken for that organ. In reply to questions, Dr. Pritchard said the girl was undoubtedly deficient mentally, and that he would have a skiagram taken to see whether the aortic arch was on the right side.

A Case of Congenital Absence of the Left Arm in a girl of fifteen years was also shown by Dr. PRITCHARD. The stump ended about two inches below the elbow in a small excrescence, which presented the appearance of a rudimentary thumb provided with a nail. He regarded the case as one of arrested growth during an early stage of development, by a fibrous band which partially strangled the growing extremity.

Dr. C. O. HAWTHORNE said that there were many cases which presented processes in the stump; he had seen at least two in which there were processes that might be claimed to be digits. In one of these there were five processes, and it was easy to appreciate the wider groove which represented the space between the thumb and the fingers.

Mr. KEOGH MURPHY thought there were two varieties of intra-uterine amputation. In the one class the extremity was rounded, and the tissues were freely movable around it; in the other there was some attempt at the representation of the digits at the amputation point.

A Case of Sarcoma with Secondary Deposits in a boy of two-and-three-quarters years was shown by Mr. A. H. TUBBY. Seven weeks previously the child received a knock on the left leg, and soon afterwards the mother noticed a swelling there, which was poulticed. Three weeks ago he was again struck on the same leg, and also fell, striking his head. A swelling on the head formed soon afterwards. He now presented a definite tumour over the left leg, attached to the fibula, and a smaller tumour over the right parietal bone. The left inguinal and iliac glands formed a large adherent mass, but were not tender. Mr. Tubby commented on the direct connection of the growths with an injury. In 1889, in a paper published in the 'Lancet,' he had pointed out the direct relation of traumatism to sarcoma of bone, and he thought this was now generally accepted. The growth on the leg and the growth on the head both followed a direct injury to the part, and appeared almost simultaneously. He thought they might be looked on as separate local outbreaks of a specific disorder. The occurrence of pyrexial attacks, as had happened in this case, was not unknown in cases of rapidly growing sarcoma, and might complicate the diagnosis. He had seen a case of sarcoma of the lower end of the femur in a girl of thirteen where the temperature reached 102° F., and led a colleague to believe that it was a case of acute periostitis. This was disproved by an incision. In the present case he did not think any operative treatment was available, owing to the implication of the glands.

Mr. LOCKHART MUMMERY suggested that the primary growth might have been in the glands of the pelvis without giving any external signs.

In reply to questions, Mr. TUBBY said that the decrease in size of the tumour on the leg might have been due to an extension among the soft tissues in a horizontal plane. He had never seen a case in which it could be truthfully said that Coley's fluid was of any value.

A Case of Congenital Dislocation of the Fifth Cervical Vertebra was also shown by Mr. TUBBY, in an infant of three months. The deformity

was noticed the day after birth, the confinement having been a normal one. No symptoms had been observed until a week ago, when vomiting came on and had occurred several times a day. At the base of the neck there was a sharp bony prominence, which corresponded to the fifth cervical vertebra. The summit of this process was formed by the left articular process, and the spinous process could be felt to the right of it, and not so prominent. On pharyngeal examination a depression could be felt on the left side of the affected vertebra. There was also congenital scoliosis, the curve being to the right in the dorsal region and to the left in the lumbar. When double extension was applied in bed the child seemed to be more comfortable, and her crying ceased. Another congenital deformity present was an absence of the costal cartilages of the fifth to the eighth ribs on the right side of the chest. There was no evidence of paralysis. Mr. Tubby regarded the case as one of dislocation of the vertebra, but was not prepared to say whether this was dependent on the scoliosis or not. He proposed to make an attempt to reduce the dislocation by traction and manipulation, but thought that as three months had elapsed, the prospect of cure was not good.

Mr. HOWELL EVANS suggested that there was an absence of half the fourth cervical vertebra, and that the marked prominence felt to the left of the middle line was the superior articular portion of the lamina of the fifth cervical vertebra, which was unopposed. The small projection which could be felt almost in the middle line corresponded to the spinous process of the same vertebra. The scoliosis would be the result of the defective vertebra.

Two Examples of Congenital Dilatation of the Ureters and hydro-nephrotic kidneys, with hypertrophy of the bladder, and **Two Specimens of Tuberculous Ulceration of the Stomach** were shown by Dr. T. M. FORTESCUE-BRICKDALE (Bristol). A **Specimen of Congenital Cysts of the Lung** was shown by Dr. GEORGE CARPENTER.

A Communication on the Relation of Certain Extra- and Intra-cranial Hæmorrhages in the New-born was read by Mr. T. HOWELL EVANS. He considered that these hæmorrhages were dependent on the following factors:—(1) An irregularity in the moulding of the foetal head; (2) this irregularity arises from the presence of accessory sutures in the situations where certain extra-cranial vessels anastomose with the intra-cranial vessels, and (3) the rise of blood-pressure which occurs during the reactionary period when the child is recovering from the birth trauma. In support of these views he noted the facts that these hæmorrhages occur in non-instrumental labours, and as frequently in breech as in vertex presentations, and with approximately the same frequency as the accessory sutures referred to. Selecting the parietal bones as examples, he said that when a parietal bone is developed from two centres of ossification, there is left a small space extending from the situation of the parietal foramen to the sagittal suture. At the parietal foramen the occipital artery communicates with the middle meningeal artery, and the occipital vein directly or indirectly with the superior longitudinal sinus. In a normal foetal skull these vessels are secure from injury, but when the accessory sutures are present irregular moulding occurs at them and the vessels are lacerated. The author illustrated these anatomical irregularities and the allied conditions in anthropoid apes by a series of lantern slides.

Dr. G. A. SUTHERLAND said that this subject was of extreme interest to physicians and surgeons, and that he considered Mr. Evans' paper was a

most suggestive one. They met with cases described as birth palsies in which the labour was normal, neither too prolonged nor too rapid, and it was difficult to understand how such cases were explained by the ordinary pressure theory.

Dr. C. O. HAWTHORNE said that any theory which was to account for these cases of intra-cranial hæmorrhages must take cognizance of the fact that they occurred in cases which had not been subjected to any undue pressure, some cases occurring in infants born at the seventh month.

The sequel of a **Case of Extreme Wasting** which had been shown at a meeting of the Society at Brighton in July last, was further described in a paper by Dr. W. C. CHAFFEY (Brighton). The patient was a boy of ten years who was extremely wasted, refused all solid food, but drank two and a half pints of milk daily, and presented no objective signs of cerebral disease. The case had been regarded by most of the members as one of hysteria. In October he developed bed-sores, had attacks of headache with screaming, and tonic contractions appeared in the extremities. These and other symptoms led to a diagnosis of tumour cerebri or meningitis. At the necropsy there was found to be chronic meningitis, chronic hydrocephalus, and an endothelial tumour about the size of a walnut attached lightly to the posterior aspect of the right optic thalamus. Dr. Chaffey commented on the rarity of endothelioma as a cerebral tumour. Taking the whole history of the case into account, he suggested there had been a chronic meningitis dating from infancy, and that this had induced the chronic hydrocephalus. The growth of the endothelioma might have been excited by an injury sustained in the school playground some twelve months before his death.

Dr. GEORGE CARPENTER said he believed that not only might new growths be started by traumatism, but also other diseases, such as tuberculous meningitis, pneumonia, and pleurisy.

Editorials.

HER ROYAL HIGHNESS THE PRINCESS OF WALES AND 'THE BRITISH JOURNAL OF CHILDREN'S DISEASES.'

WE have the honour to announce that her Royal Highness the Princess of Wales has graciously accepted the first two numbers of 'The British Journal of Children's Diseases,' in the future welfare of which she is pleased to be interested. This kindly display of concern in the promotion of the well-being of the young and the care of sick children, in addition to the Princess of Wales's well-known love for children, and the keen interest she

always displays in anything calculated to encourage the physical improvement of the Empire's future men and women, will, we think, create a stronger desire in this country for the acquirement of knowledge in relation to the prevention of infantile disorders, their more successful treatment, should they unfortunately arise, for the study of disease in children, and for the systematic teaching of this much-neglected subject, in respect to all of which we are so much behind foreign nations. The many infants and young children saved from unnecessary suffering, and conserved for the nation to enrich its national exchequer at a future date, and successfully defend its interests should they be imperilled, will not forget the Princess of Wales's part in that enterprise, which has for its goal the welfare of helpless little children and the predominance of the Anglo-Saxon race in the world. Instead of as at present being a flouted specialty in England, one which is not deemed worthy this year of a section at the Annual Meeting of the British Medical Association at Oxford, for no place has been found allotted to it there, the study of disease in children should rank foremost in medical matters, seeing that it has for its objective the eradication of disease in the adult by removing causes operating before birth or during infancy and childhood, which either tend to destroy life or impair man's mental and physical welfare, and thereby the nation's power and wealth. The Society for the Study of Disease in Children, will, however, fill this breach, for they hold their Annual Provincial Meeting at Bristol on Saturday, the 20th of June, and, judging from past experiences, this is sure to be well attended.

MILK DISPENSARIES FOR CHILDREN'S HOSPITALS.

THOSE a part of whose life-work it is to prescribe drugs for infantile ailments amongst the out-patients attending our children's hospitals are well aware of the preponderance of gastro-intestinal disorders among the bottle-fed nurslings which they are called upon to treat and expected to cure by means of the plentiful supply of drugs placed at their disposal by the boards of management.

Those medical men who have had experience in these matters are also alive to the hopelessness of the task set them in the absence of a proper dietary. Prescribing drugs under such conditions is a farce—they relieve the minds of the mothers, but they are of doubtful advantage to the sick infants.

Quite recently we were asked to inspect a large dairy farm in the country supplying milk to a well-known dairy company, which had been approached by the committee of management of a large children's hospital who were desirous of providing the inmates of that hospital with a PURE milk. What did we find as the result of our investigations? We found cows huddled together, some in ill-ventilated and dingy sheds, others in pitch-dark buildings with a foul atmosphere, all of them soiled with their own excrement and in a deplorably filthy condition, and with little, if any, bedding on the foul floors on which they stood and lay. One batch of dirty men with dirty hands and coarse dirty aprons was milking these cows in sheds which were plunged in Cimmerian darkness from an absence of light inlets. The environs of the cowsheds were a sea of filth, in which some of the more lucky animals were sticking with cow-like placidity. A visit to this place forcibly impressed us with the difficulties with which Hercules had to contend when brought face to face with the Augean stables.

The overflow from the milk coolers, placed in a building adjoining a manure yard, passed through a pipe in the floor to a dirty cattle trough, which was some forty yards distant in that yard. The junction with this pipe was by an india-rubber tube with a metal screw union, which was disengaged when not in use. The open pipe in that case helped to ventilate the dirty trough into the milk-cooling department. The milk was coarsely filtered before passing over the coolers, and the filtrate was found to contain a plentiful admixture of manure and stable refuse, as was obvious must be the case when inspecting the milkers' milk pails. There were other defects, but it is not necessary to enter into further details. The milk from this farm was deemed worthy of being supplied to the hospital, and inspection was invited; indeed, one of the advantages urged in its favour was the periodical inspections undertaken by a medical man other than the medical officer of health for the district.

Such periodical medical inspections, if this be a fair sample, are calculated to mislead the public; they are of no value, and no attention should be paid to them. Medical inspections apart from inspections by a properly constituted authority with powers to exact penalties for non-compliance with the law, which, by the way, will have to be materially strengthened, can do no good, for the self-evident reason that the medical inspector has no authority other than that given by the proprietor, who can at once terminate his engagement if he conceives his interests are being neglected. And this experience, which is not by any means an isolated one, raises another important question, and that is the necessity of having such dairy farms under something other than perfunctory inspections by sanitary authorities. We would suggest that they should also be under the supervision and control of the metropolitan and other sanitary authorities in whose districts the milk is distributed, who would be more likely to keep a stricter watch over their proceedings than now happens. To effect this it will be necessary to obtain increased powers.

So much for this hospital search after the pure article. From this company an important urban children's hospital is being supplied with milk at the present time. Another company which tendered for the hospital in search of pure milk was not seriously considered, because a bacteriological examination of its milk was found to be so very bad, whereas that from the farm just mentioned, though not good, was a decided improvement on that. It would be interesting to inspect the arrangements of the former in the light of our present experiences. If the attempt to obtain a pure milk for a children's hospital be attended by such disappointing results, what must be the condition of the milk which its poor out-patients consume, and whose ailments, derived from its ingestion, the medical staff are called upon and expected to cure by drugs?

The search for a pure milk under existing regulations is impossible of realisation. It is, however, incumbent upon the boards of management of children's hospitals to supply the in-patients under their care with pure milk, and such can only be obtained by these bodies supplying their own milk, under wholesome conditions and skilled management, aided by expert medical and veterinary superintendence; and with this object in view they are invited to study

the Walker-Gordon methods of dairy-farming, which have been productive of so much good in the United States of America.

The nursing's sole food supply in the absence of breast milk is cow's milk, and seeing the lamentable loss of infant life in this country from dietetic errors, it is sheer waste of energy under existing conditions to insist upon it being given to the infant in a pure state. Pasteurization and sterilization are methods of precaution which trifle with the evil—the placing of the cart before the horse. In the absence of a pure cow's milk, suitably rendered to the infantile needs, there can be no success in infant rearing—deaths and chronic illnesses must still result, as they have for years resulted under existing conditions. The physicians in attendance at the hospitals should be able to provide the patients with what is really requisite for their cure, a *pure and suitable cow's-milk mixture*, which will be dispensed by the milk dispenser in the hospital milk dispensary, which will in the future rank with the drug dispensary. We do not wish to be misunderstood. We are not advocating percentage milk mixtures to the exclusion of other well-known methods of milk treatment, but whatever the method of dilution selected by the physician, which his experience dictates, that selection should be dispensed at the hospital for the sick out-patient infant. Whether the milk should be supplied in part or wholly at the expense of the hospital or at that of the patient must depend upon the financial necessities of that patient and upon the funds at the disposal of the hospital for that purpose. These are questions which do not affect the principle of this advocated reform in the treatment of hospital out-patients, and if the justness of the truth of the principle be granted, then to put it into practice is a matter of no great difficulty. Improvements in the methods at first adopted may be expected to arise from the experience gained in their operation.

It is quite easy to raise a host of objections to such a plan as that advocated. The difficulties of getting the milk to the patients, especially if they reside at a distance, will be advanced; but the hospital boards of management at first should content themselves with supplying the milk to patients living within a reasonable radius of the hospital. To those living outside that radius in the fulness of time other institutions and boards may lend their aid in the good

work, and the poor will then be able to obtain a pure and suitable milk for their infants on presentation of a physician's prescription at local milk dispensaries.

Nor must the fact that the poor are incapable of properly conserving the milk when supplied to them in a pure state be advanced as an excuse to delay this necessary reform. The poor would have to be personally instructed in such matters, and such instruction could well be given by the hospital boards of management supplying the milk, and not only as to the conservation of the milk, but also on the management of their sick infants.

The supply of milk to the in-patients and out-patients can well go hand in hand, and the fact that when the patients leave the hospital they must, under the conditions now existent, return to a contaminated milk must not be used as an argument against the proposed plan. The same applies to the sick child returning in health from the convalescent home in the country to the unhygienic surroundings of the city slum.

Modern urban children's hospitals not only require pure milk for their patients, but a country branch is likewise a necessity, and at that country branch, which should not be too far removed from the parent institution, an up-to-date dairy farm should be attached. Here, too, a laundry could well form part of the establishment, and soiled linen should not be washed on the premises, as is the custom in some badly managed urban children's hospitals.

In these days of quick transit by road-motors there should be no difficulties other than financial in bringing about such a scheme.

The attention of the boards of management of children's hospitals is therefore drawn to the necessity for the inauguration of milk dispensaries as part of their hospital equipment. They should put a stop to what at present is a reproach to such institutions, the distribution of drugs to the out-patients, often at a charge of so much per bottle, which helps to swell the hospital coffers, for the relief of ailments which are due to unwholesome milk. Such ailments can be cured by dispensing the appropriate milk, for which a charge can be made with perfect propriety, and without sacrifice of dignity.

It is idle to raise lamentations about physical degeneration so long as the young are dragged through infancy in such a careless manner,

and to the detriment of their future mental and physical prospects. The medical boards of children's hospitals must wake up to their responsibilities in this matter, and point the way to their boards of management by seriously taking in hand the subject of hospital infantile dietetics, and, if necessary, by urging them to appeal to the public to provide funds to bring about these much needed reforms. In the case of the smaller children's urban hospitals dairy farms could well be undertaken on co-operative principles, and the suggestion is offered to such institutions. Children's hospitals must take the lead in instituting reforms in infantile dietetics. Such reforms, praiseworthy though they be, should not be left to the initiation of well-meaning sanitary authorities—they are apt to be badly advised and injudicious in the selection of their methods from an expert medical standpoint. Though children's hospitals should be pioneers, it is clear that the question is one of national importance. The time must come when even the children of the poorest parents will be able to obtain in every city milk, the purity of which is above suspicion, and modified according to their individual necessities.

THE LIVERPOOL COUNTRY HOSPITAL FOR CHILDREN.

In the year 1898, in consequence of an experience extending over many years, which proved that children admitted into an institution devoted to the care of incurables (where they were meant to end their days) very frequently, instead of dying, became well and strong and able in later years to earn their daily bread, and in consequence also of a recognition of the fact that such children suffering from chronic ailments could not be dealt with in any but the most temporary way in the general hospitals, where the beds are urgently required for acute cases, a number of enlightened citizens in Liverpool determined to establish in an adjacent country district an institution conducted on the lines of a modern hospital, where children suffering from chronic diseases could receive active medical and surgical treatment from first to last without any limitations as to time. Early in 1899 the Lord Mayor, Mr. William Oulton, called a meeting at the Town Hall, which was attended by a large number of citizens,

who so warmly and sympathetically appreciated the nature and objects of the new scheme that by November the 4th of the same year sufficient funds had been subscribed to enable the committee to open a ward containing twenty beds, placed at their disposal at an annual rental by the authorities of the West Kirby Home for Convalescent Children. The hospital thus inaugurated was opened by Sir Edward Russell, who, in the course of his remarks, said: "The hospital, he believed, would be looked upon as a great experiment to be followed in other parts of the country, and he was convinced that, if they kept their principles in view, the hospital might be the beginning of a national undertaking, and that the country at large would realise the importance of so treating the rising race that nothing of which science could make a certainty should be left to chance."

The experimental stage to which Sir Edward Russell referred has now passed, and sufficient data have accumulated to enable those who have been watching the progress of the patients, both while in the hospital and since they have left it, to arrive at the conclusion that their anticipations have been justified.

The results have been so encouraging that the committee, at the Fifth Annual Meeting to be held on the fourteenth of this month, will present plans which have been prepared for the erection of a permanent hospital capable of accommodating in its completed state 200 children. In dealing with children who are the subjects of chronic diseases the term "incurable" is a purely relative one, many of the maladies from which they suffer being progressive and incurable only so long as they remain in conditions unfavourable to their welfare; and during the past five years it has become abundantly evident that prolonged treatment in the fresh air of the country, with freedom from worry and from unrest in an institution where plenty of good food and good nursing are available, has turned the balance in the direction of recovery in many cases which have looked unpromising enough when first admitted. One of the most striking manifestations of improvement, which is noticeable even in patients suffering from diseases which are usually associated with wasting, is the almost uniform way in which the children improve in their nutrition and become less anæmic within comparatively short periods of their

admission. These are important evidences of recuperative power and of the increased possibilities of the repair which they foreshadow; and that they result from treatment in the country hospital is rendered manifest by the fact that many of the children have necessarily been previously under treatment both in the city hospitals and in their out-patient departments without corresponding improvement in their condition. There is not the slightest doubt that many children, whether suffering from diseases which come under the physician's care, or from the tuberculous and other chronic conditions which require the surgeon's skill, have had their lives saved; and the absence of the time-limit furthermore has allowed of more conservatism in practice, with the result that joints have been preserved which might otherwise have required excision.

A point in practice which has been found to work admirably in the Liverpool Hospital has been the co-operation of the physician with the surgeon in every case. Each child is placed under the joint charge of these two officers, and the frequency with which the combination of resources has been of service to the patient is worthy of note and of the attention of those who may be contemplating the establishment of country branches for the city children's hospitals.

The patients have been retained for periods ranging from a maximum of over two years to a minimum of four months, the average duration being about seven months, and a feature of this prolonged hospital life is that all patients of suitable age who are likely to remain for more than three months receive instruction by a teacher appointed by the educational authorities, and besides their ordinary school-work they learn plaiting, clay moulding, knitting, and sewing. For the greater part of the day the little patients are, when weather permits, in the open air, or, when wet or cold, in a well-appointed sun-room, and in the summer-time the medical officers see many of the cases in the grounds of the hospital, where they lie in the sun or under the shade of a large permanent verandah. The children are exceedingly happy, and the whole scheme has proved to be one of unqualified success, worthy of adoption by all the large cities.

AMERICAN CONGRATULATIONS—"A NEW PEDIATRIC JOURNAL."

UNDER the latter heading our old and esteemed friend and colleague 'Pediatrics,' in an editorial article, is pleased to draw attention to our new venture in the following kindly manner, which we have much pleasure in reproducing for our readers' benefit:—"Many of our readers will remember that in the early days of 'Pediatrics' a special European edition was published in London. This was in 1896, but for one reason and another it failed to flourish in its English field, although at home it grew to be the leading journal in the specialty. It was our fortune at that time to be associated with Dr. George Carpenter, whose name still is to be found on our editorial page, as collaborator, and we tender our most hearty congratulations to him in his venture, 'The British Journal of Children's Diseases,' the first number of which appears in January, 1904. Dr. Carpenter, in his "Introduction," speaks of the early struggles of pediatrics in England, and frankly admits the leading position taken by American pediatricists. 'The Americans,' he says, 'at that time, be it understood, were far in advance of Englishmen in all matters relating to children's complaints,' a position that we think the American pediatricist of to-day holds in respect to the world at large. There is no country in which pediatric work is so well supported and where it is taken up from so many sides as here. We are the more pleased to see this new journal, recognising in its birth the awakening of a permanent interest in one of the most important branches of medicine. Given healthy children we cannot fail to have healthy adults, and we welcome all aids in bringing about this desirable result. We congratulate Dr. Carpenter on the appearance of this new journal, and wish for it a most hearty success."

Excerpta Puerilia.

The Philadelphia Pediatric Society and The Society for the Study of Disease in Children.—That the old country is not moribund, but has merely been in a condition of trance, and when aroused can accom-

plish good work is evidenced by the congratulations we have received on behalf of The Society for the Study of Disease in Children from the Executive Committee of the Philadelphia Pediatric Society, who state that the three volumes of the 'Reports' of The Society for the Study of Disease in Children have been much admired by many of their members, and that they propose devoting their surplus funds to the production of a similar publication. We wish our American colleagues every success in their venture, and we hope to study with pleasure and profit the Transactions of the Philadelphia Pediatric Society at no very distant date.

Diminution in the number of children and milch cows in Great Britain.—Mr. Robert Turnbull, the agricultural statistician, in the 'Agricultural Gazette,' draws attention to the fact that, according to the 1901 census, there was an increase of the total population of six and a half millions, and of this number five and a half millions was in respect to those over fifteen years of age. The number of people over fifteen formed slightly more than two thirds of the whole population of England and Wales, while the children under fifteen formed slightly less than one-third. On the basis of this proportion the number of children should have been at least double what it is. The general public are under the impression that the increase in the number of children is immensely greater than the increase among those of greater age, but Mr. Turnbull's figures will dispel that illusion; and they draw forcible attention to the unnecessary waste of child life in this country, which, unhappily, has been for long enough so apparent to some of us. This vital question bears upon our future prosperity and our influence as a great power. A decreasing child population and a coinciding diminution of mental and physical powers among the survivors are not the materials with which to preserve our possessions or found fresh empires. Mr. Turnbull also is of opinion that our children receive too little milk, because the number of our dairy cattle is less than it should be. In 1891 there were eighty cows per thousand of our people, whereas in 1901 there were only seventy cows per thousand—an increase in the population of twelve per cent., and a diminution of our dairy cattle of two per cent. In 1891 the milk supply for two persons was a little more than three-quarters of a pound, but in 1901 the supply was only two-thirds of a pound. He ascertains that the average quantity of new milk which is required for all household purposes is six and a quarter hundredweights per head of our population whereas at the last census that supply was only equal to two and a

quarter hundredweights per head. The importance of a plentiful milk supply for young children cannot be over-estimated, and the value, therefore, of the milch cow to our childhood is incalculable. We hope for not only an increase in their numbers, but we urge the speedy adoption of methods which will ensure for these animals a perfectly healthy existence and the delivery of their produce to the public in a pure state. By adopting hygienic principles the dairy-farmer will obtain much more milk from the animals, and it will therefore pay him to be cleanly, and we give him this friendly advice. Failing voluntary reform, which at present seems unlikely to take place, the Legislature must take his instruction in hand—the public are becoming weary of him and his equally unsatisfactory confederates.

Physical degeneracy.—One of the half-penny daily papers enters a protest against the outcry about physical degeneracy, and says, "Look at the modern woman," giving as an illustration a hockey player of the female sex. There can be no doubt that amongst some classes the physique of woman has improved. For the last twenty years one has only had to compare the girls of the better classes with their mothers to be assured of this fact. But, allowing this to be true, and that tennis, bicycle-riding, and other athletic pursuits have had something to do with the increased development of girls who indulge in such pursuits, it is necessary to remember that these girls form a very small part of the community. To note their existence and to suggest that their healthy appearance is due to a more vigorous activity during the period of growth than was allowed during the girlhood of their mothers is permissible, but it would be a mistake to assert from the appearance of so small a section of one sex of the English race that the physique of the whole nation is improving.

Cigarette smoking by boys.—This subject has continued to be a topic in some of the daily papers. According to one of them, a schoolmaster who has a class of seventy-one boys between the ages of eight and thirteen asked those who smoked to stand on the forms. Sixty-seven stood up, and the four who remained seated "were looked at with suspicion." This seems to us rather a large percentage, and if the four who remained seated were justly "looked at with suspicion," we can hardly help thinking that some who stood on the forms feared ironical jeers from their schoolmates if they classed themselves with the "behind-the-times" non-smokers more than they did a lecture from the schoolmaster if they associated themselves

with the smokers. There can be little doubt that it is not the pleasure of smoking, but the idea that it is grand or manly that leads the majority of boys who smoke to indulge in the practice. Even with many adults it is not the flavour of the tobacco or any soothing effect upon the mind that is the explanation of their use of the pipe or the cigarette. It is one means of affording relief to a nervous craving a man may have when he is idle for something to do, if it is only for something to handle with his fingers. A cigarette to a man is what knitting-pins are to many women.

The care of poor children in France.—Napoleon, says the ‘Yorkshire Daily Post,’ did not forget the children, and he planned a scheme of education on a “broad liberal basis” which forms the foundation of the educational system in France at the present day. The Napoleonic system is described as embracing “a sort of official fresh-air curriculum.” A considerable percentage of the children are sent in batches to the country for twenty-one days. In the forests of the Jura the boys chop wood, dig, weed, and hoe “with all the zest the Paris gamin alone can bring to such unwonted pastimes.” In the green pastures of the Vosges the girls feed poultry, learn to milk cows, make hay, and help in the garden and orchard. The boys, too, who are sent to the sea are said to add fishing to farm-work. All this, it is needless to remark, displays careful forethought and admirable organisation. The care of poor school-children is, however, not confined to giving them three weeks’ holiday every year. The way in which the “French Republic fulfils its duties to the humblest of its children is perhaps more complete and more thorough than in any other administration in the world.” Both the feeding and the clothing of the poorer children are looked after. Attached to every school is a special fund entirely devoted to supplying creature comforts to the more needy of the scholars.

3585 babies.—Under this heading the ‘Daily Mail’ publishes an article upon the causes of death of babies by misadventure in London during last year. 1684 died of burns and scalds, 481 were overlaid, and 1420 are said to have died from improper feeding. It has always seemed to us that many of the deaths attributed to overlying are not in reality due to that cause. We have known a case where a baby died suddenly in its cot while its mother was sitting complacently at work by its side. Had the mother been in bed with the infant, death would probably have been attributed to overlying. Several cases of so-called overlying are, with little doubt, cases of death from laryngismus stridulus. Allowing, however, the

statement that overlying is frequent to be true, a simple but more or less ingenious arrangement devised by a gasfitter, which obviates the danger of overlying and at the same time does away with the necessity of a mother getting out of bed to quiet the infant, should be mentioned. He fixed gas-pipe uprights at the head and foot of the bed, and from these slung a hammock, in which the baby was placed. It was then safe from danger, and when inclined to be restless the mother had only to put up a hand and give it a gentle rocking. In connection with this subject of sudden death it should also be mentioned that those who believe that an enlarged thymus is responsible for this form of death will no doubt attribute some cases of so-called overlying to this cause. With regard to the large number of deaths attributed to improper feeding, it can hardly be said that the number can have been over-estimated. These cases are gleaned from amongst the poor. If cases were added in which infants had died more or less directly as a result of improper feeding amongst the middle and upper classes, we think the death-roll would be materially increased. The number of deaths from burns and scalds is large. It is stated that nine-tenths of these deaths were due to playing with matches. The simple precaution of hanging the matchboxes by a string on the wall out of reach of the eldest child, which is suggested, it is said would have saved considerably over a 1000 deaths.

Defective children in schools.—Of the children of London of school age, one in 955 is blind or deaf, or both, one in 300 is mentally defective, and one in 510 physically defective. For these children the School Board has provided schools, and the committee which has the supervision of this work has issued the annual report. There are eight day and two residential schools for the blind, with an average attendance of 205 pupils; fifteen day and two residential schools, with an average attendance of 516, for the deaf; sixty schools for the mentally defective, having an average roll of 3063; and eight physically defective centres with a total roll of 433 pupils. Similar schools exist for at least some of these divisions of defective children in a few of the large provincial towns, but there is room for much more to be done in this direction. The taking of cripple children to school by means of an ambulance and the fitting of them for some calling in which they can earn their daily bread is alone a branch of work that should delight the heart of any philanthropist. The training of the mentally defective child does not appeal so readily to the imagination. Perhaps the blessing of schools for such children is

almost as much a boon to the mothers as to the children themselves. Yet it is needless to add that in some cases it is remarkable how a feebly equipped mind can be developed upon certain lines.

Abstracts from Current Literature.

Chronic interstitial nephritis.—James E. H. Sawyer ('Birmingham Med. Review,' August and September, 1903). This paper on chronic interstitial nephritis in children is founded on a collection of twenty-four examples of the malady. In speaking of the etiology of chronic interstitial nephritis in children, the author supports the view that syphilis, either hereditary or acquired, may be the chief factor in the causation of the condition in children, and may play a greater part in the etiology of the disease in adults than is generally attributed to it. In many of the cases which are collected in this paper, dilatation of the ureters or of the pelves of the kidneys is recorded, and the number of times in which this has been observed is sufficient to suggest that some obstruction to the exit of urine may set up interstitial changes in these organs. The dilatation, however, is only slight, and is exaggerated by the atrophied condition of the renal substance, so that in all probability the condition is secondary to the interstitial change. There is evidence in favour of the changes in the kidneys being the results of a primary inflammation of the interstitial tissue of the organs, and not a final stage of parenchymatous nephritis. The chief arguments in support of this view are that the patients suffer rarely from renal œdema, and that in many cases there is a history of polyuria since birth. The disease seems to be rarely caused by scarlet fever or by any of the specific fevers. With regard to sex, the condition appears to be slightly more frequent in females than in males, since fourteen of the patients were girls and only ten were boys. The morbid anatomy of this form of renal disease in childhood is very similar to that of the malady as it is found later in life. The accompanying changes in the other organs of the body appear to be even more constant in children than in adults. This is shown very clearly in a table where the number of times in which certain structures were affected are compared in the two periods of life. It is an interesting fact that in many of the cases there is a considerable inequality in the weight and in the size of the two kidneys. There are four symptoms which are given as pathognomonic of the disease, namely: (1) increased

arterial tension, with cardiac hypertrophy; (2) polyuria, the urine containing a small amount of albumen; (3) excessive thirst; (4) continued loss of weight. The facial appearance, the pigmentation, and other changes in the skin are also described. Edema is rare in chronic interstitial nephritis in children, and is only seen in the terminal stages of the disease, when the heart is failing. Intracerebral hæmorrhage occurred in three of the cases. Albuminuric retinitis was found to be present in four of the patients, and is probably more frequent, as in only a few instances were the fundi examined. Uremia is shown to be the most frequent cause of death, and appeared sooner or later in nearly all the cases.

Among the cases which are described there are five which have not been previously recorded, while the others are collected from many different sources. The first case, that of a boy aged four years, came under the author's own observation at St. Thomas's Hospital. There was a distinctly syphilitic history in the father. The patient had been sounded for stone when eighteen months old, but none was found. For six months previously to admission to the hospital there were frequent headaches and occasional vomiting. There was increased frequency of micturition, and a large quantity of urine was passed. Severe epistaxis occurred on more than one occasion. On admission to the hospital the child was rather pale and thin, and small for his age. The heart was hypertrophied. The optic discs were very pale, but otherwise appeared normal. The patient became increasingly lethargic, and died five days after admission into the hospital. At the autopsy the kidneys were found to be typically granular. The walls of the left ventricle were hypertrophied, and the aorta and all the arteries springing from the arch and from the abdominal aorta were considerably thickened. There are also recorded three cases taken from the records of the Children's Hospital, Great Ormond Street, which are typical examples of the disease. The children were aged ten years, two years and five months, and eleven years respectively. In the last of these cases there was albuminuric retinitis. An account is also given of a female patient, aged eighteen years, who was in St. Thomas's Hospital in 1902 under the care of Dr. Colman. In this case of chronic interstitial nephritis there were about thirty gummata of various sizes scattered throughout the liver, and one small gumma was present in the spleen. There was no history of syphilis obtained from the parents, but nevertheless the condition in the patient pointed to it being a congenital rather than an acquired affection.

Chronic interstitial nephritis is only in a comparatively small

number of children diagnosed before the death of the patient, and the condition in many cases is discovered almost accidentally at a post-mortem examination. There is a great contrast between the duration of the disease in children and in adults, since in the former, by the time that definite symptoms make their appearance, the period is short, on an average about one year, before a fatal issue occurs.

JAMES SAWYER.

Infections of the new-born.—Hamill ('Archiv. of Pediatrics,' September, 1903, p. 641) includes under the name of infections of the new-born all those diseases which are most probably due to some form of microbial infection before, during, or after labour. Among these are mentioned melana neonatorum, hemorrhagic disease of the new-born, hamophilia of the new-born, Buhl's disease, and Winckel's disease. Most cases occur in maternity hospitals. Possibly the infection is air-borne in a few cases, and in a small percentage are due to the mother's milk being infected by suppurative lesions in the breast. In others infected bedding, etc., or bath water may be the cause. He regards the chief mode of spread as a badly trained or careless nurse. The point of entry is usually the mouth, tonsils, pharynx, or some part of the alimentary tract. Post mortem the signs are those of "congestion" and "hemorrhage." The onset of symptoms may be delayed beyond the fifteenth day. The chief symptoms are pyrexia, toxæmia, offensive diarrhoea, icterus, all kinds of skin eruptions, anorexia, rapid wasting, apathy, hemorrhages, cyanosis, rapid breathing, and nervous phenomena. The essential factors in treatment are isolation, fresh air, food and stimulants.

EDMUND CAUTLEY.

Infantile insanity in its relation to moral perversion and crime is the subject of an article by Dr. McLane Hamilton in the 'Medical Record' for June the 20th, 1903.

Some writers hold the opinion that actual insanity in the young is very rare, but the literature of psychiatry is very rich in these cases. It is now recognised that many forms of adult insanity are also found in early life, primary limited delusional insanity, paranoia, parietic dementia, and even circular insanity being observed. Insane children sometimes have obsessions, which are rarely talked about, and an impulse is the first evidence of the mental mischief. In the majority of cases there is an apparent absence of the moral sense, and this is usually the case when homicidal acts are committed. Insane criminal perversion in the young may be due to idiocy, imbecility, or to a psychopathic state consequent on epilepsy; to true primary delusional

insanity; to a psychopathic state with delusive ideas and obsessions; and to parietic dementia and other adult mental diseases rarely developing in childhood. The first division is not discussed, the author merely mentioning that pyromania is exceedingly common in epileptic children. Paranoia in young children is not so common as the other insanities, and consequently crime among children, as the result of delusion, very rarely occurs. A large number of the reported cases of juvenile crime take place in children in whom there is an unstable degenerative condition, which may be the result of improper environment and unsuitable education or entire want of it. Defective heredity plays an important part in the production of children of unstable nervous development, and when to this is joined a vicious environment they become drunkards, thieves, or murderers. When the neurotic child grows older, defiance of society is taught, and a feeling of unrest is converted into delusions. The unstable condition often leads to alcoholism and sexual excesses in boys and girls even before puberty. The management of vicious and insane children is very difficult, for the interference of an injudicious humanitarian will do great harm, while, on the other hand, the unthinking disciplinarian, who will not admit that the irresponsibility may be due to disease, would have them sent to prison. The best treatment for them would be a good school, presided over by a wise and sensible man, or, for the worst cases, institutions where employment on the farm or in trades is provided, and thus they will be removed from bad environment and association with criminals.

FLETCHER BEACH.

The pathology of feeble-mindedness.—In a paper in 'Ann. di Freniatr.' for June, 1903, Dr. G. B. Pellizi treats of heredity and some clinical symptoms in relation to the genesis and pathology of feeble-mindedness. In the degenerative, genetic, evolutionary, or common forms of idiocy (meaning thereby what is more scientifically designated *simple primary amautia*), pathological lesions can only be guessed during life; whereas in cases associated with infantile hemiplegia, diplegia, and other paralyses, precise lesions may be traced. König, indeed, suggests that idiocy and cerebroplegia are identical; this, however, in Pellizi's opinion, is going too far. He classifies 52 per cent. of his cases as evolutionary and 32 per cent. as pathological; 16 per cent. of cases were of doubtful origin. Pellizi has made a special study of forty selected cases, in view not only of their pathology, but of their educability. He finds neurotic heredity more frequent in the cerebroplegic than in the evolutionary cases, and concludes that infantile spastic diplegia may be at any rate in

part) due to formative defect. This is in accord with what has been observed in this country by Collier, Batten, and others.

G. E. SHUTTLEWORTH.

Rickets and feeble-mindedness.—The connection of rickets with feeble-mindedness is discussed by Drs. Bourneville and Lemaire (of the Bicêtre, Paris), in the 'Archives de Neurologie' for September. It was found that rachitic changes of unmistakable character were present in 34 out of 435 patients in residence. The latter comprised idiots, imbeciles, and feeble-minded children, the proportion of rachitic cases amongst these amounting to 8 per cent. The malformations noticed were, in descending order of frequency, beaded thorax, deformity of the skull, facial asymmetry, and dental anomalies. Five cases of scoliosis and six of excessive curvature of the tibia were also noticed. Pelvic deformities were met with in only two cases. Another fact was also clearly shown, viz. that the mental backwardness of the patients was generally not congenital. Such infants appeared to be of normal intelligence during the first few months of their life, and it was only at the age of one and a half or two years that symptoms of idiocy manifested themselves. The majority of the children were free from anatomical 'stigmata of degeneracy' apart from the special deformity of rickets, a fact which suggested that the defect of the nervous system could not have been produced in the period of foetal life. It was frequently noticed that the mental weakness of the rachitic patients, referred to above, made its appearance after an attack of infectious broncho-pneumonia or gastro-enteritis. It was also noticed that while in many cases mental enfeeblement was the sole sequel of the pulmonary or gastro-intestinal infection, in a few cases rachitic deformity of the bones alone resulted, and that the relationship of these sequelæ to one another was such as to suggest that one and the same toxic or infectious agency was the cause of brain degeneration (weak-mindedness and imbecility) and of disease of the osteogenetic process (rickets).—'Lancet,' November 21st.

G. E. SHUTTLEWORTH.

Profound idiocy with infantilism; considerable amelioration.—Dr. Bourneville contributes an interesting article in the 'Archives de Neurologie' for August, 1903.

The history of the case showed that the maternal grandfather of the child died from "paralysis of the brain," and the maternal grandmother, who was a drunkard, from cerebral congestion, and many cousins suffered from convulsions. Up to the age of nine months the

child was quite normal, but at that age he suffered from convulsions, which lasted for three days, and complete idiocy resulted. He could not speak, and there were unclean habits, want of use of the limbs, no expression, no power of attention, and arrest of dentition. The convulsions were repeated from nine months up to two years of age. From two to three years they became less in number, and finally disappeared when he was three years old. A slight amelioration of his condition then took place, and the paralysis of one of his lower limbs disappeared. Intellectually, however, there was no improvement; the attention could not be arrested; the physiognomy was still idiotic; and the child was deaf. He was admitted into the Bicêtre under Dr. Bourneville's care at the age of three years, and for the first three years no educational treatment was pursued, as the child suffered from scurfiness of the skin. At the end of this three years the child had become clean in his habits, some expression in the features could be noticed, and the attention could be fixed. At the end of 1895—that is, five years after admission—tics, from which he had suffered, disappeared. The child could then speak, had learnt to wash, dress, and feed himself, and practically required no assistance. At last he learnt to read, write, count, to work simple addition, subtraction, and multiplication sums, and to recognise and name persons and things. The affective sentiments were developed, and the child was fond of his mother and the persons who surrounded him. When admitted he was supposed to be deaf. He was not so in reality, but his auditive attention had not been developed. He was much below the average height. At the end of 1902 he was nineteen centimetres less in height than he should have been, and not only so, but there was absence of hair on the face, body, and pubes; the genital organs were little developed, and there was no sign of puberty, although the boy was nearly sixteen years old.

FLETCHER BEACH.

Amentia.—An excellent, and in some respects novel article on "Amentia," from the pen of Dr. A. F. Tredgold, appeared in the 'Practitioner' for September, 1903. Dividing all cases into the two great classes of *primary* and *secondary amentia*, he points out the characteristic types of the former, with the complications involved in (a) gross anomalies of development, and (b) secondary morbid processes. Ascribing all cases of primary amentia to morbid heredity, he divides cases of secondary amentia into those due to (a) gross cerebral lesions; (b) nutritional defect; (c) special-sense defect; (d) degenerative processes. The paper is well illustrated.

G. E. SHUTTLEWORTH.

Mongolian idiocy.—In the 'Lancet' of December the 12th Dr. Fennell, of Darent Asylum, gives particulars of three cases of Mongolian idiocy—a girl of 9, a boy of 13, and a man of 27,—in which he had found evidences of congenital malformation of the heart. This is interesting in view of Dr. Archibald Garrod's published observations on young Mongolians and the statements of others of wide experience with the class, that it was rare to find heart malformations in such children surviving the age of three years.

G. E. SHUTTLEWORTH.

Thyroid treatment of Mongolian idiocy.—Thyroid treatment in cases of Mongolian idiocy, infantile myxedema, and arrested physical development was commended by Dr. Bonneville (of Paris) in a paper read by him at the Congress of Alienists and Neurologists recently held at Brussels. He states that good results may be expected in all cases of these diverse categories; and, except when the epiphyses are ossified, physical growth has undergone a regular and considerable increase (as shown by radiographs).

G. E. SHUTTLEWORTH.

Non-Semitic amaurotic idiocy.—In No. 45 of the 'Muenchener Medizinische Wochenschrift' (November the 10th, 1903) Dr. Arthur Müllerberger gives an account of two sisters, of *German, not of Jewish parentage*, showing typical symptoms of familiar amaurotic idiocy. The younger child is stated to be $1\frac{1}{4}$ years of age, the elder appears about 3 years older.

FLETCHER BEACH.

Infantile neurasthenia.—Cappelletti (in 'Rif. Med.,' No. 17, 1903) describes two cases of infantile neurasthenia in a girl of eleven and a boy of twelve respectively, and points out the following psychic phenomena as aiding the diagnosis of this condition, viz. (1) defective attention, (2) taciturn disposition, (3) impaired memory, and (4) diminution of will. Physical signs are—(1) pain in head, (2) vertigo, (3) insomnia, (4) myasthenic symptoms, (5) gastro-intestinal disturbance, (6) genital excitability (masturbation), (7) irritable heart, (8) vaso-motor and secretory disturbances, (9) degenerative stigmata. Though many of these symptoms appear in other conditions, the period of their onset may help in diagnosis, and if neglected may issue in an alienation of the whole psychic life. The "state of doubt" is universally present, though met with in varying degrees, sometimes concerning itself about such small details as looking to see if a door be shut, reading and re-reading letters, etc.

The social and moral life of such a patient requires to be regulated with discretion.

G. E. SHUTTLEWORTH.

Juvenile psychoses originating in whooping-cough. — Dr. Rudolf Nenrath, of Vienna, has made some observations which are interesting in relation to juvenile psychoses and neuroses starting with an attack of whooping-cough. He found in sixteen out of seventeen cases extreme thickening of the pia mater and arachnoid, and a new proliferation of connective tissue, with lymphocytes penetrating the meninges. In many cases there were also hæmorrhages in the pia mater, and between the meninges and the brain. He discovered in the grey substance dilatation of the lymphatics, œdema, hæmorrhages varying in intensity, hyperæmia, and accumulations of white blood-corpuscles along the vessels. No micro-organisms were found. There was a remarkable correspondence between the clinical symptoms and histological changes found in the meninges and brain. Cases with highly developed nerve symptoms, convulsions, pressure phenomena, dulness, and somnolency showed the above-described histological changes, and markedly the accumulation of new cells in the meninges.

G. E. SHUTTLEWORTH.

Hysteria in childhood is treated of by Thiernich and by Bruns in the December number of 'Jahrbuch f. Kinderheilkunde.' Young children do not present hysterical stigmata (according to Thiernich), and hysteria is with them mono-symptomatic. The most common manifestations arise from auto-imitation, as when diarrhœa persists for psychical reasons, and the headaches of school-children are often hysterical, as is shown by their disappearance when some simple, perhaps inert, drug is administered. Imitation of their parents is also a cause of hysterical affections in childhood, and Thiernich suggests that much, perhaps all, hysteria in children is due to injudicious up-bringing. Bruns gives statistics as to frequency of hysteria in children under sixteen. Such patients form about 2 per cent. of all his various cases, hysteria being about one-fourth as common in children as in adults. His youngest cases were three years old; most occur between the ages of seven and twelve. Paralysis with contractures, neuralgia of joints, speech disturbances are amongst the forms seen; 90 per cent. are curable, but the child must be removed from home to get good results.

G. E. SHUTTLEWORTH.

Symptoms of suffocation in an infant caused by a piece of coal lodged in the trachea; operation; recovery.—Walker Downie ('Lancet,' January the 16th, 1904).

A boy aged 15 months was put to play on the floor by its mother, who on her return found him near to the hearth crying and gasping for breath. The child was fretful, would not eat, had difficulty of breathing and frequently cried out with pain. His doctor when called in found the child very ill and sent him to Glasgow. Dr. Downie saw him 10 p.m. of the day following the first symptoms. The child was pale and exhausted, but his cry clear; air entered both lungs badly. The child was chloroformed; an inspection of the larynx showed it to be normal. The trachea was opened and a piece of coal was found firmly fixed at the fourth ring. This was removed, and breathing was immediately restored to the normal; there was a little transitory reactional fever. The tube was left in the trachea for a few hours as a precautionary measure. The recovery was quick and uneventful.

R. LANE.

Reviews of Books.

THE NUTRITION OF THE INFANT. By RALPH VINCENT, M.D. Durh., M.R.C.P. Lond. Pp. 288. Publishers: Ballière, Tindall, and Cox.

IT is difficult to understand the *raison d'être* of this book, or for what particular portion of the medical profession it is intended. Apparently the publishers doubt its merits being sufficiently great to command success if only aided by the criticisms of the medical press. At any rate it has seemed to them, with or without the connivance of the author, advisable to advertise the book, and to get it reviewed in the non-medical press. Yet in no sense of the word can the book be regarded as a popular one, or as written with a view to impressing the general public. The chapters on human milk, cows' milk, and substitute feeding are written on a scientific basis, and are full of tables of analyses quoted from other writers. Largely these chapters are an epitome of Rotch's writings on the subject, with a few added tables of analyses. The first twelve chapters (200 pages) deal with the subject of infant-feeding and development. Next come four chapters (65 pages) on nutritional disorders, and finally a chapter on infantile mortality. The earlier chapters are much too full, much too heavily weighted with tables of analyses, and insufficiently precise in directions as to feeding, to be of very great value to the general practitioner. To the expert some of these tables will be valuable for reference. The chapters on nutritional disorders are quite suitable, and will prove useful to the general practitioner. As a whole the book may be regarded as an honest attempt to combine in one

volume physiological and chemical factors in normal nutrition with the pathological results of abnormal nutrition. There is little indication of original observation, and not much of practical experience. Perhaps that could hardly be expected, and we should congratulate the author on bringing out such a satisfactory exposition of the subject before his experience and opinions have reached a greater maturity. We cannot endorse the enthusiasm with which he supports the system of percentage feeding, but on the whole there is little in the work with which we do not cordially agree. The book is well printed.

E. CAUTLEY.

MODERN METHODS IN THE SURGERY OF PARALYSIS. BY A. H. TUBBY, M.S.Lond., F.R.C.S.Eng., and ROBERT JONES, F.R.C.S.Edin. Macmillan and Co., Limited.

MR. Tubby and Mr. Jones are well known for their work in the surgery of paralysis, and the present volume is mainly a collection of their cases and opinions, with which readers of the journals are already familiar. Of the three sections into which the work is divided the first, devoted to infantile paralysis and the resulting deformities, is the most complete. Naturally the bulk of the space is given to the operations of tendon-transplantation and arthrodesis. No methods have marked so useful an advance in treatment as these. It is the fate of a new operation to suffer while finding its level, but few have been so immediately accepted and so little abused. There are excellent paragraphs on the mechanical treatment of the paralysed but improving joint. This is a subject which Mr. Jones has taken great pains to emphasise in his previous writings, and his views are well stated here. As the authors say, the whole principle of treatment is to place the joint in a position favourable to the recovery of overstretched but not paralysed muscles. Thomas was the first to call attention to the effect of the constant overstretching of a weakened muscle by its healthy antagonist, and to show how much may be done in such cases by proper appliances. The authors do well to call attention to the neglect which has hitherto been part of this branch of treatment.

The various types of spastic paralysis are dealt with in the second section of the book. Perfectly just objection is taken to the indifference, for which some of the older neurologists are probably responsible, which has been associated with the treatment of these unfortunate cases. That much may be done by tenotomy, muscle-grafting, and the fitting of suitable apparatus is shown. But above all is stress laid on the educational factor, both of mind and muscle, and on the impossibility of treating these children in the ordinary hospital course. Each needs special attention for many months. One is glad to see that the new educational authorities in several of the larger centres are providing the special schools for which most of these cerebral paralyses are suitable.

The last section considers a long list of nervous diseases and the associated deformities. It is necessarily the most fragmentary and least satisfactory of the three. The work as a whole is well written and well illustrated by clinical reports; it is an excellent and timely monograph.

W. P. MONTGOMERY.

Correspondence.

TRANSMISSION OF TUBERCULOSIS BY MILK.

To the Editor of THE BRITISH JOURNAL OF CHILDREN'S DISEASES.

SIR,—I mentioned recently in the 'General Practitioner' the possibility of milk being contaminated by *human* tubercle bacilli, and thus setting up the disease in children and others. As I pointed out in an article in that journal, our milk is carried and stored under conditions which would render such contamination more than easy. Frequently one sees the milk churns standing in a draughty railway station, on the usual sputum-soiled platforms; goods trains jolt by, sometimes filled with the refuse of dust-bins or stable sweepings. While Koch may be perfectly right with regard to the transmission of bovine tuberculosis by milk, may we not, while agreeing with him, regard the disease as milk borne?

I am, sir, yours faithfully,

A. PERCY ALLAN, M.D.

Croydon, January the 31st, 1904.

ENURESIS IN CHILDREN.

To the Editor of THE BRITISH JOURNAL OF CHILDREN'S DISEASES.

SIR,—I received last evening the very interesting copy of your new JOURNAL. It is curious that it should have come just when it did—*firstly*, because my Board have just asked me to certify that some cases of bed-wetting are easily cured, and some the reverse; *secondly*, because I have only this week given up trying to cure a case by the plan of dieting recommended in the paper by Dr. Percy Lewis. It did absolutely no good at all. We have a large number of cases in the school, and I have come to the conclusion that many of them derive no benefit from any kind of medicine. I have tried everything I could read, hear, or think of, and failed with all the remedies tried. In days long gone by I used to succeed fairly often by applying at bedtime a very broad strap (with a good deal of fuss, and a considerable noise of whacking, but very little pain) to the buttocks of the bed-wetters. But I had to give this up, because an inspector doubted whether I was justified in using such a remedy. The most curious case of cure I know of was that of a boy of thirteen or fourteen, a persistent bed-wetter, who had a truly severe attack of chicken-pox, and never wet his bed again. If experiments be justified in such cases, why not imitate, after a fashion, an attack of varicella by sprinkling with blistering fluid? Seriously, cutaneous irritation of the *proper areas* might do good.

I am, sir, yours faithfully,

MEDICAL SUPERINTENDENT.

February the 6th, 1904.

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Original Articles.

THE ASSOCIATION OF CHOREA WITH *TENIA SOLIUM*:
ILLUSTRATED BY TWO TYPICAL CASES.

By JAMES BURNET, M.A., M.B., M.R.C.P. Edin.

*Senior Clinical Tutor, Extra-mural Medical Wards, Royal Infirmary,
and Physician to The Marshall Street Dispensary, Edinburgh.*

ON several occasions I have observed the association of chorea with thread- and round-worms, but in every instance the patient had a definite rheumatic history, either personal or in the family. Cases of chorea in which tapeworms are present are much less common, and therefore deserve to be recorded whenever met with. As I have quite recently had two such cases brought under my notice, I make no apology for giving brief histories of these, in the hope that they may prove interesting and instructive. The importance of the cases about to be recorded lies in the fact that both were unusually severe in their nature and that both were associated with the presence of *Tenia solium*.

The first case was that of a girl 17 years of age, but looking very much younger. She was said to have developed choreic

movements five days before I saw her. These were, to commence with, limited entirely to the right side of the body and face, but now they were generalised. Her previous history showed that she had never had measles, scarlatina, or acute rheumatism, though it was impossible to gather from her relatives whether or not she had had any definite rheumatic affection. Four years before she had a slight choreic seizure, said to have been brought on by fright. She had never menstruated, and had always been a very excitable child. The only facts pointing to rheumatism in the family history were that the patient's mother was rheumatic and that one of the girl's sisters suffered from chorea shortly after her convalescence from an attack having all the evidence of acute rheumatism.

When I first saw the patient she was lying in bed. The movements were very violent, involving the head and face as well as the body and limbs. At times she contrived to throw herself out of bed on to the floor, and had injured herself in consequence. The pulse was 128, and the respirations 32 per minute. The axillary temperature was 99.6° F. Breathing was evidently very difficult owing to spasmodic and irregular action of the respiratory muscles. When spoken to the patient made no reply. The heart was dilated, but there was no murmur audible, though great difficulty was experienced in conducting the physical examination of the patient owing to her grotesque movements.

At the outset 5 grains of Hydrarg. Subchlor. were administered, which resulted in a very thorough action of the bowels. She was placed upon a diet composed solely of milk. A mixture of Sod. Brom. grs. xv and Tinct. Digitalis mv was ordered to be taken every four hours. The treatment was continued for four days without any very obvious effect. It was then considered advisable to try Sodii Salicylas, which was given in 10-grain doses every six hours, while the bromide and digitalis mixture was continued every four hours as before. At the end of a week no improvement whatever was noticed. The probability of worms being present was then thought of, and accordingly a capsule containing Extr. Filicis Liq. was ordered. This resulted in the passage of a large tapeworm. Unfortunately the head could not be found in the dejecta.

From this time the patient began to improve. The improvement was not, however, immediately apparent; but within three days after the segments of the worm were passed she answered "yes" to questions which were put to her. This was the first time the patient had spoken since the onset of the attack. The pulse now became normal, and the movements gradually became less violent and

finally subsided. Three weeks after she had been under my care I noted that the choreic movements had practically ceased, that the patient could talk quite well, and that she now slept a great deal even during the day, although the bromide mixture had been stopped for more than a week. A second dose of Extr. Filicis Liq. was successful in bringing away the head of the worm, together with a large number of segments, and from that time the patient made a complete recovery.

The second case to which I wish to refer is that of a girl aged 12 years. Exactly a year before the onset of the present illness she had had an attack of pleurisy associated with pains in both lower limbs, no doubt rheumatic in nature. She had never been quite the same since, and had gradually become pale and very nervous. Two days before I was called in the patient was noticed to be very stupid and clumsy in her movements. When writing in school, the school-mistress observed twitchings in the hands and face. The parents were both rheumatic, and her younger brother suffered from sore throat and "growing pains." When first seen the child was sitting on a chair making grimaces, and twisting and wriggling about. She was ordered to bed and put on a milk diet. A dose of Hydrarg. Subchlor. was administered. Next day she seemed slightly better. The heart was examined carefully, and was found to be dilated, while the pulmonary second sound was noticed to be markedly accentuated. Aspirin in $7\frac{1}{2}$ -grain doses was ordered to be taken every four hours. This was continued for eight days without result; in fact, the patient's movements were gradually becoming more pronounced. Arsenic was then given in addition, and this was pushed up to 10 drops thrice daily. In three weeks' time the patient's condition had assumed a somewhat serious aspect. She had now become very breathless, and the respirations numbered 36 per minute. The temperature had risen from normal to 101° F., while the pulse was very rapid and feeble. Bearing in mind my experience in the former case, I resolved to try the effect of a dose of Extr. Filicis Liq., and accordingly a capsule containing 30 minims was administered. The sequel was very striking. A fairly large sized specimen of *Tania solium* was passed, and fortunately the head came away along with the other segments. Almost immediately the choreic movements ceased, though it was fully a fortnight before the heart recovered its tone. The child is now perfectly well, although the accentuation of the pulmonary second sound still remains, and the heart continues to be slightly dilated.

These two cases are interesting in many respects. In the first

place I wish it to be carefully noted that in both instances there was a history of rheumatism. Further, both patients were females and of distinctly neurotic temperament. Again, the removal of the tape-worm was followed by an almost immediate relief of the symptoms. I have brought these two cases before the notice of readers of this JOURNAL in the hope that they may be encouraged to place on record experiences of a similar nature. Moreover, cases such as these serve to prove that chorea, even in rheumatic subjects, may have its origin in causes other than the rheumatic toxin, and of these tape-worm is by no means the least important. The presence of tape-worm should at least always be borne in mind in those cases of chorea which prove unamenable to the usual routine treatment.

LOBAR PNEUMONIA IN CHILDREN.

By BERTRAM ABRAHAMS, M.B., B.Sc., M.R.C.P.,

Assistant Physician to the Westminster Hospital.

ONE of the most striking advances in medical science which have come about during the past twenty years has been the recognition that certain diseases run a course in children which is totally different from that followed in adults. The knowledge of this fact as regards acute rheumatism has led to enormous strides in the treatment of the disease in children, and in the prevention of valvular heart disease. The discovery, too, of the infantile form of scurvy has unquestionably alleviated a not inconsiderable amount of suffering, particularly among the children of the better classes. But such discoveries if their application be pushed too far may in themselves be productive of some harm, and it cannot be denied that there has been of late something of a tendency to regard the diseases of childhood as *eorum generis*, and totally distinct from the maladies met with in adult life. Thus, for example, it had been almost an article of belief that pleural effusions in children invariably tend towards suppuration, and this view is still widely prevalent, in spite of Dr. George Carpenter and others having shown that serous pleurisy is quite as common in children as empyema. The experience of all who are largely interested in pædiatrics is full of examples in which the course of a disease in a child exactly copies that which it would follow in an adult. We are all familiar with phthisis in children beginning at

the apex of the lung; some of us have even seen young children die of hæmorrhage in typhoid fever.

Among the diseases of which the frequent occurrence in children is insufficiently recognised is lobar pneumonia, which is quite a common affection from the age of two and upwards. As it presents certain features in which it differs somewhat strikingly from the adult malady, I propose to give a short account of it, and to lay stress upon these peculiarities.

The seasonal incidence of lobar pneumonia in children reaches its maximum in the spring, but does not show anything like so definite and well-marked a curve as is found with adults. As with them, the malady attacks chiefly those who are debilitated, but the period of preliminary bronchitis, which is usually so conspicuous in cases of broncho-pneumonia, is absent, the onset being typically sudden. Now all diseases which commence suddenly in children exhibit a general similarity in their initial symptoms, which are usually nervous or gastro-intestinal, or both. A child which is attacked by lobar pneumonia may therefore have convulsions with or without vomiting and diarrhœa; in such a case the only other symptoms will be high fever and a dry, burning skin. It may be assumed that at this stage physical signs in the lungs will not have developed. The first idea of the practitioner will naturally be that the little patient has scarlet fever, and it is not until the time for the characteristic rash and sore throat has elapsed that this affection can be excluded. Another disease which may be closely simulated at the onset is meningitis. Lobar pneumonia in children is, as I shall have occasion to mention, very frequently apical, and it is these apical cases which are particularly liable to be ushered in by head symptoms. Some years ago I had an amusing experience of this in out-patient practice. A child was brought in with head retraction, squint, and a history of convulsions. I pointed out to the students that in making the diagnosis apical pneumonia must be amongst the diseases to be excluded; we accordingly examined the chest and found no abnormal physical signs. The child was sent into the hospital with a diagnosis of basal meningitis; next day it developed the typical signs of apical pneumonia. I ought not to have made the mistake, as the child's temperature in the out-patients' room was 105° , a height which is virtually never reached at the onset of basal meningitis.

When the disease is established there is usually very little difficulty in diagnosis. It must be remembered, however, that the lobar type is not always strictly adhered to. One not infrequently finds a patch of consolidation in one or other axilla, or there may be

dulness over the whole back of the chest on one side. The dulness is not as a rule extreme, the note having usually rather a ringing tubular character. The apices are frequently affected; they were primarily attacked in eighteen out of sixty-two cases of which I have notes. On auscultation, tubular breathing can always be heard, together with fine, high-pitched râles. The very loud râles, resembling the pattering of rain on an open umbrella, which are characteristic of broncho-pneumonia, are not to be heard in the lobar variety. The physical signs in the latter are usually confined to one patch, unless the disease be bilateral. The random distribution observed in broncho-pneumonia finds no counterpart here. The temperature also differs strikingly from the irregular fever of broncho-pneumonia, rising abruptly and remaining high till the crisis. Since the prevalence of influenza in our midst I have, however, noticed that in children, as in adults, lobar pneumonia exhibits an increasing tendency to terminate by lysis. The dyspnoea and cyanosis which are usually such conspicuous signs of broncho-pneumonia are absent in the variety under consideration, unless, indeed, both lungs be simultaneously affected. Cough is not a marked symptom, at any rate at first, and this is particularly the case in the apical form. The principal *complications* are pleurisy, which is so constant as to be one of the phenomena of the disease, and hyperpyrexia. Pericarditis supervenes more frequently than in adults; I have seen one case in which a fatal termination was due to this complication. Jaundice, nephritis, and meningitis are rarely associated with the disease, and the same may be said of gangrene of the lung. The chief danger apart from hyperpyrexia is asphyxia, but the prognosis on the whole is exceedingly favourable. It is not uncommon, however, for some dulness to persist for weeks after the attack has passed away. Empyema is not an infrequent sequela, and is of course a far less grave disease than in adults.

As to *treatment*, very little need be added to the dictates of common sense. The child should be isolated in an airy room, and the symptoms met as they arise. Stimulants will hardly ever be necessary, and a mild expectorant, such as a grain of ammonium carbonate occasionally in milk, will effectually relieve the pulmonary discomfort. If both lungs are involved, it may be necessary to give oxygen and digitalis. The application of leeches to the precordia may here be of great service. Convalescence is as a rule rapid, and the child is virtually well within a fortnight of the onset.

THE TREATMENT OF TRACHEOTOMY WOUNDS IN
DIPHTHERIA.

By A. ERNEST JONES, M.D., B.S.Lond., M.R.C.P.

TRACHEOTOMY wounds in diphtheria in the majority of instances heal up readily, being usually impervious to air after five to eight days, and quite sound in from ten to fourteen days. There are, however, certain conditions which prevent the attainment of this desideratum, and the results of this non-union are extremely serious, both as regards the child's health and general welfare. A sinus left for six months after tracheotomy is as a rule very difficult to cure, the attempt involving great peril to the child's life; and the child grows up in most cases an inarticulate being, with all the tremendous drawbacks to such a condition. In addition, there is the trouble and risk attached to the care of the permanent tube, and the increased liability to bronchitis and other respiratory infections. It is the experience of those who have seen much of these cases that they suffer more than other children from bronchitis, but are less susceptible to pulmonary tuberculosis. This is in harmony with the general views held with reference to these affections in children, the one being a direct infection down the respiratory tract and the other more commonly a tonsillar or glandular infection. The increased liability to bronchitic attacks is probably to be attributed to the loss of the filtering action of the nasal mucous membrane—thus resembling one of the ways in which adenoid mouth breathers are liable to bronchitis,—and not to the direct influence of the cold air taken into the lungs. For these and other reasons it is therefore a highly important thing to endeavour to obtain early union of the wound as soon as possible after its *raison d'être*—the relief of obstruction—has been fulfilled.

The chief conditions which militate against this early union are the following :

(A) *Continued Presence of Obstruction in the Glottis.*

1. Mechanical obstruction, due to organic changes in the vocal cords. These changes may be either a primary cicatrization, due to the diphtherial lesion, or a secondary one, due to the irritation of intubation or other mechanical interference. This latter mishap,

although very rare, does occasionally occur, the cases being usually not recorded. It is unnecessary to say more under this heading, as it is obvious that, while present, this condition is an absolute bar to closure of the wound.

2. Obstruction of nervous origin, due to spasmodic contraction of the cords. This is rarely a sufficient cause in itself to prevent healing, but it is an important factor in conjunction with other conditions. It can, as a rule, be diagnosed by the relief obtained by the administration of chloroform, and also by the fact that the obstruction is often purely an inspiratory one.

(B) *Various Conditions in the Wound.*

1. If the larynx be injured in the operation the wound often gives great trouble in the course of healing.

2. Slight septic infection of the wound is a deterrent rather than an absolute bar to union.

3. The character of the tracheal opening may exercise an important influence on closure of the wound. Thus, if the upper end of the opening be not cleanly incised at the time of operation, it sometimes happens that a portion of the antero-lateral wall of the trachea is able to fall back and act as a flap valve, partly shutting off the larynx. Again, if the wound be not median, and the tracheal wall be weakened by inflammation, it occasionally happens that the anterior wall falls back on to the posterior wall from its own weight whenever inspiration occurs, constituting another variety of flap valve. Therefore the local condition of the wound should always be carefully inspected under a good light, so that such occurrences, if present, may be detected.

The following case, for which I am indebted to Dr. Wills for permission to record, is in many ways typical of the difficulties that may arise.

Sidney A—, aged 2, was admitted into hospital August the 22nd, 1902, with the usual signs of a severe case of laryngeal diphtheria, and with only sixteen hours' history of symptoms.

At the operation, which was performed on admission, the thyroid gland was found to reach quite to the cricoid cartilage, which was divided in the high tracheotomy. At the moment of incision the child vomited, and the thyroid cartilage was inadvertently cut through for its lower two thirds. The child was convulsed on coming round from the anaesthetic.

2nd day of disease.—Doing well. Pulse regular and strong. Heart's apex beat is internal to the left mid-clavicular line.

3rd.—Tube taken out at noon. The wound had to be dilated several times in the course of the day owing to bad asphyxial attacks, during which the child got rigid. Patient vomited once.

4th.—Membrane removed from trachea on two occasions.

5th.—At five this morning patient had a bad asphyxial attack and then collapsed; absent pulse, cessation of breathing, etc. Restored by usual means, after which oxygen had to be given continuously for a couple of hours. Tube reinserted for five hours. Heart's apex beat is now half an inch external to the mid-clavicular line and slapping in character. Much recession of lower chest-wall present all day; relieved by removing membrane with tracheal forceps.

6th.—Pulse frequent and irregular. Sweats greatly. Occasional vomiting. Has to be frequently feathered.

9th.—Much bronchitis. Occasional syncopal attacks.

10th.—Squints. Distension of abdomen (relieved by turpentine enema).

11th.—Food comes through tracheal wound.

13th.—Breathing worse; much recession.

14th.—Pulse, squint, and recession as above. So much distress present that rubber tube inserted, which gave relief.

18th.—Intubated, but tube coughed up in an hour's time.

19th.—Reintubated three times, but could not tolerate the tube, and severe vomiting occurred. General condition very bad, and much respiratory distress present.

21st.—Intubation again attempted, but child had a bad syncopal attack. Much cyanosis present all day.

23rd.—In night child nearly died in a bad asphyxial attack. Pulse extremely feeble for some hours after.

27th.—Colour still bad, and general condition about same.

28th.—Intubated; the rubber tracheotomy tube had to be left in with a hole cut in its convexity into which the intubation tube fitted. The necessity for this procedure seems to indicate that the intubation tube does not reach the obstruction.

29th.—Intubation tube ejected after twenty hours. Regurgitation of food present. Chloroform administered, and a Jacques catheter inserted through the nose nearly to the tracheal bifurcation. This caused difficulty in the expulsion of mucus, which was present in great quantity. Child nearly died twice by asphyxia, and after fourteen hours the tube was drawn up as far as lower part of larynx

and the bi-way rubber tube reinserted into the wound. Chloroform had to be given for several hours, both before and after the reinsertion of the tracheotomy tube.

31st.—Nasal tube, which had been left in for local effect in larynx, taken out. Child refuses thickened food, while thin liquids pour down its larynx. Nasal feeding avoided as long as possible on account of cardiac condition. Temperature 102° F.; more bronchitis; sleeps fairly.

47th.—General condition better. The discharge has been very blood-stained for a week, possibly owing to the rubber tube having been much shortened.

48th.—A full-length bi-way tube having had no effect in preventing the bleeding, an ordinary one-way rubber tube was inserted to-day.

51st.—Bleeding ceased; hence it was probably due to the irritation occasioned by the extra aperture in the tube.

52nd.—Under chloroform, Bond's metal cut-throat tube was inserted and tightly corked. Breathes fairly well. General condition much better.

53rd.—Food has been stopped for twenty hours as nasal feeding was thought undesirable, whilst mouth feeding would send food into lungs. Tube had to be readjusted under chloroform last night.

56th.—9 a.m., metal tube taken out and nasal catheter inserted as at first. Distress occurred in spite of continuous oxygen administration, and in two hours the tube was removed; the trachea had to be opened owing to almost complete collapse of the child. At noon, under chloroform, the edges of wound were pared and completely sewn up. Breathes very badly except under chloroform, probably owing to fright and consequent glottic spasm, so that at 4 p.m. three of the five stitches had to be removed. Wound covered with Leslie's strapping.

57th.—Chloroform and oxygen had to be given last night till 2 a.m., when child quieted and slept. Five more stitches inserted without chloroform, and this time child breathes well through nose.

58th.—Three stitches had cut through, and were reinserted.

59th.—Wound very inflamed, so that hot, wet boracic compresses were ordered, to be changed hourly.

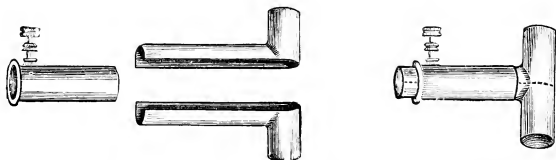
61st.—All stitches removed owing to condition of wound.

68th.—Wound healthier and shrinking.

73rd.—Wound absolutely impervious and soundly healed. The scar is puckered and adherent to the trachea, from which it can, if necessary, be freed in a few months' time. General condition of child excellent. Child speaks now and then.

This case illustrates, I think, more especially the necessity for trying as many expedients as possible to get the child to breathe through the larynx, and it shows how justifiable it is to run the gravest risks in order to avoid a permanent sinus. If this be not done, one will in many cases fail in securing closure of the wound.

An interesting point about the case was the fact that the dyspnoea was always inspiratory; one was always struck throughout by the ease with which the child could expire through the larynx, while, on attempting to inspire, the anterior tracheal wall seemed to fall back and completely close the airway. That the obstruction was not in the larynx was also shown by the fact that the child could not inspire through the intubation tube (*vide* 28th day). A special feature in the treatment of the case was the use of a small Bond's tube. The success of the instrument was marked, and, as I have



Bond's T-shape tracheal tube for introduction into the trachea in separate halves. Intended for use in cases of obstruction after transverse wound of the trachea. From a block supplied by Messrs. Down Bros.

not heard of its application in similar cases, such a use seems to me to be worthy of record.

The main lines on which treatment of tracheotomy wounds should be based are the following:

1. Keep the wound as aseptic as is possible. It should be always covered with a double layer of aseptic gauze, which can be conveniently fastened at one corner to the sternum either by a spot of collodion or by a strip of Unna's zinc strapping. This is easily changed as frequently as is necessary. It undoubtedly conduces to cleanliness of the wound and general comfort if the clothing be cut well away in a *décolleté* fashion, and made to open back and front. This obviates the usual crumpling of the garment over the neck and wound when the chest is being examined. It is unnecessary to advocate the sterilisation of all instruments and mops involved, this being, of course, an essential.

2. The tube should be removed at as early a date as possible,

more especially if any of the laryngeal cartilages be injured. One can usually take out the silver tube after twenty-four hours, and if another tube be required later on for a few hours more, a rubber one should be inserted.

3. Every effort should be made to calm and reassure the child, and in some cases the administration of Bromide of Potassium is of use in very excitable children.

4. The only contra-indication to the use of heroic measures if the wound does not spontaneously close is a poisoned and dilated heart; when this is present, as it was in the above case, one has to be very careful and proceed at intervals.

HERPES ZOSTER ASSOCIATED WITH GENERALISED BULLOUS ERUPTION FROM PROLONGED ADMINIS- TRATION OF ARSENIC.

By JAMES H. SEQUEIRA, M.D.Lond., M.R.C.P.Lond., F.R.C.S.Eng.,
Physician in charge of the Skin Department of the London Hospital.

SINCE Mr. Hutchinson's classical observation that herpes zoster is occasionally caused by the prolonged administration of arsenic, many cases have been recorded, and it is only the unusual association of a generalised bullous eruption with the zoster which leads me to describe in some detail the present case.

Beatrice K—, a healthy, well-grown girl, aged 5, was brought to the London Hospital in the summer of 1902 suffering from psoriasis. The eruption had first been noticed on the back, chest, and abdomen in February. A little later the scalp was involved, and in March the arms and legs were affected. This primary development of psoriasis on the trunk and the later extension to the extremities in the first attack is not unusual in young subjects, as has been pointed out by Colcott Fox. The eruption was everywhere of the guttate type. The spots were small and circular, and covered with characteristic scales. Three minims of Fowler's solution in water were prescribed three times a day, and the spots were locally treated, after removal of scales, with an ointment of ichthyol and salicylic acid. The patient lived in the country and was only seen at long intervals, but the treatment was not intermitted. About three months after the treatment commenced, the mother states that she noticed that the skin of the trunk was

darker than normal, but she attributed the change in colour to the ointment.

On October the 3rd, 1902—that is, about four months after the patient was first seen, and during which time she was known to have been taking arsenic (though it is possible that the drug had been administered some time before),—the child was brought up to the hospital with a crop of vesicles and bullæ all over the trunk. The lesions varied in size from a pin's head to 5 mm. in diameter. They were rounded, tense, and contained a clear fluid, and there was a narrow zone of hyperæmia round each. On the loin, hip, and the upper part of the thigh, and the anterior aspect of the lower part of the abdomen on the right side, there was a copious eruption of herpes zoster, corresponding with Head's first lumbar area. The skin of the trunk was also pigmented. The colour was a pale yellowish brown, with the peculiar dappled appearance of arsenical pigmentation. The psoriasis had almost disappeared. The face and extremities were entirely free from vesicles, and the pigmentation was limited to the parts covered by clothing. The skin of the palms and soles was free from hyperkeratosis, which is a common phenomenon in chronic arsenical poisoning. There was no paralysis and no wasting of muscles, and the knee-jerks and other reflexes were present. The child was in perfect health, and had at no time presented any signs of acute arsenical poisoning, such as catarrh of the eyes and nose, or gastritis.

The arsenic was stopped and the herpetic patch covered with a layer of cotton wool fastened with collodion, and the vesicular eruption was dressed with a simple, soothing ointment. All the lesions rapidly dried up, but the pigmentation persisted, and is only now (November, 1903) disappearing. The scars of the herpetic lesions persist, but there is no scarring in the site of the bullæ elsewhere. The psoriasis relapsed very soon, but is now improving under salicin in five-grain doses three times a day.

Urticarial, erythematous, bullous, and even ulcerative eruptions are recorded as following the administration of arsenic, while the occurrence of herpes zoster has been so often observed as to leave no doubt that it has an etiological significance. In an analysis, Neilsen found that of 557 cases of psoriasis treated with arsenic, herpes zoster occurred in 1·8 per cent. In 220 cases treated with iodide of potassium only, herpes appeared in only 0·4 per cent. Head and Campbell's pathological study of herpes zoster showed that the skin lesions are due to inflammatory changes in the posterior root-ganglia, similar in character to those found in the anterior horn-ganglia in anterior polio-

myelitis. The prolonged administration of arsenic is known to produce paralysis and wasting of muscles, and this form of peripheral neuritis, like that due to lead, is doubtless caused by the poisoning of the anterior horn-ganglion cells. That similar changes should occur in the posterior root-ganglion cells is also probable, though the presence of the arsenic may only be a determining factor.

The special point of interest in the present case is the co-existence of a generalised bullous and vesicular eruption with the herpes zoster, and in this connection it is of interest to note that it is not uncommon to see isolated vesicles on the skin at a distance from the herpetic area in cases of herpes zoster. Indeed, Tenneson says that such vesicles are to be found, if carefully looked for, in the majority of cases. These lesions are commonly found on the same side of the trunk. In the case now described they were so numerous and so widely diffused that I think that they can only be considered to be an evidence of the arsenical poisoning, and not "aberrant" vesicles of the herpes zoster. The fact that none of these vesicles left a scar, while the scars were numerous in the herpetic area, may be of some support in this direction. Cases of herpes zoster with a generalised herpetic eruption have been described, but not, I believe, in connection with chronic arsenical poisoning.

CURIOUS CONGENITAL CYSTS OF THE LUNG ASSOCIATED WITH DEXTROCARDIA CAUSED BY PRESURE FROM THE CYSTIC LUNG.*

By GEORGE CARPENTER, M.D.

ROSINA P—, aged five months, attended the out-patient department of the North Eastern Hospital on November the 16th, 1903. She had been ill a fortnight with "wheezing at the chest," but before that she was quite well. She was breast-fed. The first child was stillborn; the next died at five weeks old; the child following also died. The fourth and fifth were alive and well, the sixth had fits, the seventh was well, and the eighth was the patient.

On examination the child was pale, with a cyanotic tint, and there were signs of bronchitis.

The *cardiac impulse*, which was weak, was in the fifth interspace,

* Exhibited at The Society for the Study of Disease in Children, December the 11th, 1903.

half an inch outside the nipple line on the *right side*. The superficial *area of cardiac dullness* commenced at the fourth right costal cartilage. The spleen was one finger in front of the costal margin and the liver two fingers below the costal margin in the nipple line.

The infant was ordered a cough mixture and improved, but on



FIG. 1.—The lower lobe of the left lung, which has had a part of the cyst-wall removed so as to display the large cyst and perforations in it which lead into another and smaller cyst. The arrows denote the line of section which was subsequently made in this specimen and from one side of which Fig. 2 has been drawn.

November the 27th it was admitted into the hospital in a collapsed condition, with a temperature of 97° F. On its recovery from the collapse the temperature ran up to 103.5° F., the respirations were 84 to the minute, and the pulse-rate 144 to the minute. It became convulsed and died on the 29th.

At the post-mortem examination the heart was found as indicated during life. It was *not* rotated on its axis ; it was thrust over bodily to the right side. Its valves and blood-vessels were normal. The right *lung* was broncho-pneumonic. The lower lobe of the left *lung* was slightly adherent to the chest, and it appeared to be converted into an airbag. The other organs were quite healthy.

The specimen was exhibited as it was removed from the body, so

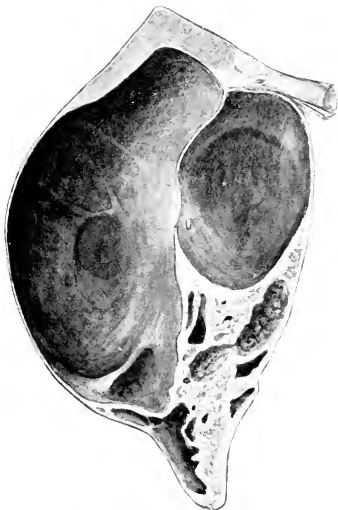


FIG. 2.—Fig. 1 has been cut into two at the part shown by the arrows. Two large cysts and several small cysts, together with still smaller cysts, have been brought in view by this operation, and are here shown.

as not to destroy the naked eye appearance found at the autopsy. On further examination almost the whole of the lower lobe was found to be converted into a cyst the size of a small orange (Fig. 1). It contained nothing but air. It was divided into four or five secondary smaller cavities by septa which were perforated by circular apertures. The walls of the cyst were lined with a yellowish granular material, the naked eye appearance of which presented nothing very definite.

The bronchus traced down was found to enter a small area of comparatively unaffected lung. None of the divisions of the bronchi could be found to enter the cyst. Below the cyst was another portion of apparently healthy lung, which on being cut into was found to be composed of numerous small cysts of various sizes, some of which contained granular material, and some were empty (Fig. 2).

Had it been a single cyst one might have thought it a sequence of some destruction of the lung, but the presence of numerous cysts seems to suggest that the condition is more of the nature of congenital cysts, akin to those of the liver or the kidney.

The Society for the Study of Disease in Children.

A MEETING of this Society was held on February the 19th, 1904, at 11, Chandos Street, Cavendish Square, W., Mr. R. CLEMENT LUCAS in the chair.

A Case of Cerebral Diplegia with Changes in the Fundus Oculi was shown by Dr. ROBERT HUTCHISON. The child was seventeen months old. It was full time, the labour was easy, and there was no history of syphilis. All its limbs were flexed on the trunk, the muscles were spastic, and the deep reflexes were exaggerated. It was imbecile. The optic discs were atrophic, there was extensive choroido-retinitis, and diffuse opacities in the lenses. The condition was thought to be due to arrested development of the cortex cerebri, probably syphilitic.

A Case of Progressive Cerebral Degeneration of the Family Type was also shown by Dr. HUTCHISON. A boy, four years of age, was healthy until ten months old, when fits occurred on and off for some weeks. Two months ago he began to stagger when walking, and he next developed some spasticity of the legs with mental apathy. The optic discs were becoming atrophic. There was another child in the family who became affected in the same way and at the same age. There was no history of syphilis.

Mr. SYDNEY STEPHENSON thought the case belonged to a group which had been more or less worked out lately, one in which systemic symptoms were those of cerebral degeneration, which were correlated with fundus changes, the optic discs being pale but not necessarily atrophic. Smallness of the retinal vessels was also noticed, and fine pigmentary changes in the central region of the fundus. He had seen one case, the offspring of a consanguineous marriage.

Mr. JACKSON CLARKE thought the cases illustrated the importance of consultation with a physician before surgical treatment was undertaken in young children with general spasticity.

A Case of Symmetrical Bilateral Branchial Fistulæ with Symmetrical Bilateral Helical Fistulæ and Misshapen Aural Pinnæ was shown by Mr. J. HOWELL EVANS. In the cases recorded by Sir James Paget there was a very definite hereditary influence. There were other congenital deformities in members of the family in Mr. Evans's case.

Mr. MUMMERY did not agree with Mr. Evans that the fistulæ in the case were in the position of the fourth branchial cleft: he thought it was the third.

Mr. CLEMENT LUCAS said the cases showed the extreme hereditary tendency there was. He had seen closed fistulæ mistaken for glands in the neck owing to cyst formation.

Mr. EVANS, in reply, said it was the third cleft as usually reckoned, but he was inclined to view it differently.

A Portion of a Coin-catcher which had been Removed by Gastrotomy was shown by Mr. DONALD ARMOUR.

A Case of Vertical Monocular Nystagmus was shown by Mr. ARNOLD LAWSON. The affected eye showed a leucoma of the cornea due to an old perforating ulcer. Convergent strabismus was present, which had been relieved by tenotomy, and with a good effect on the nystagmus.

Dr. C. O. HAWTHORNE related the case of a child who had monocular nystagmus who was not blind in the eye. The nystagmus ceased when the pupil was dilated by atropine.

An Early Case of Friedreich's Disease was shown by Mr. JACKSON CLARKE. The boy, aged 4 years, had dropping of both feet, exaggerated knee-jerks, Babinski's sign, and the parents had noticed some weakness of the left hand. A brother of the child had rigidity of the lower limbs and wasting of the muscles of the thumb. Symptoms began in his case at six years. He advocated in the early stages light instrumental guidance, later tendon elongation and tenotomy followed by massage.

Dr. PORTER PARKINSON thought the case would have passed unsuspected had it not been for the fact of the family history.

A Case of Hæmatoma of the Parietal Bone was shown by Dr. GEORGE CARPENTER. The swelling was very hard and felt like bone and suggested an osteophyte. The lump dated from birth, when it was soft. Mr. Sale-Barker, who made skiagrams, did not think there were any bony elements in the tumour.

A Specimen of Secondary Angio-sarcoma of the Lung was shown by Dr. W. A. WILLS and Mr. DOUGLAS DREW. Mr. Drew removed the left testicle for sarcoma in April, 1902, and there was no recurrence, local or general, until December, 1903. It was thought to be a case of empyema when admitted, and a rib was resected, so sanguine were they that there was pus, but at the resection a new growth was discovered. At the post-mortem inspection it was thought to be a primary sarcoma of the lung, but subsequent inquiries negated that idea, and the case illustrated how a fallacy might arise even after a very careful post-mortem examination. Mr. Douglas Drew reminded the Society that in the previous November he had exhibited the child as one of cure after removal of sarcoma of the testicle. On the last occasion he had seen the child. Dr. Parkinson had found no evidence of

disease in the lungs. The primary growth was adeno-myxo-sarcoma. The lung tumour resembled the primary growth in part, but the rest of it was of the nature of angio-sarcoma or endothelioma.

Dr. PARKINSON thought that the growth started at the root of the lung, that it came to the surface comparatively late, and that was why there were not any physical signs.

Dr. WILLS, in reply, thought the growth had been extremely rapid at the last.

A Case of Anæsthesia and Recurrent Ulceration of the Gluteal Regions from Spina Bifida was shown by Dr. PARKES WEBER.

Mr. HOWELL EVANS looked upon such conditions as primarily traumatic.

Mr. DREW said that nutritional changes were frequently met with in cases of spina bifida.

A Case of Tuberculous Disease of the Lachrymal Sac was shown by Mr. SYDNEY STEPHENSON.

Mr. CLEMENT LUCAS asked whether it was a primary growth, or whether it had extended from the nostril.

Mr. STEPHENSON said it was clearly a secondary tuberculosis, since the lachrymal disease was noticed eighteen months after the tuberculous glands in the neck. There was no obvious evidence of tubercle of the nasal passages.

Microscopic Sections of the Kidney from a Case of General Œdema in an Infant were shown by Dr. GEORGE CARPENTER. The infant was breast fed. It was dropsical like a case of nephritis, and there was albuminuria, but no tube-casts. Post-mortem there were no inflammatory renal changes, but the kidneys could not be looked upon as absolutely normal in that they showed exudation between the glomeruli and their capsules and in the convoluted tubules, but there was a complete absence of catarrhal or interstitial changes. He considered the condition toxæmic, but the nature of the toxin was not obvious, nor indeed the cause of death.

Dr. PARKES WEBER thought the case was an example of what could be called toxæmic œdema and toxæmic albuminuria. Absence of nephritis in such cases might be due to personal peculiarity.

Microscopic Sections of the Heart and Kidney from a Case of Acute Œdema of the Lungs and Sudden Death were shown by Dr. GEORGE CARPENTER. The child came under observation clinically as a case of heart failure, and it was diagnosed during life as one of uncomplicated myocarditis. The urine was loaded with albumen, there were no patellar reflexes, and the soft palate was thought not to move freely. There was no history of diphtheria, but, taking the clinical findings into consideration, the condition was thought to be diphtheritic. Dr. Carpenter drew attention to his observations on uncomplicated myocarditis in children during the previous session, and recorded in the 'Reports' of the Society, and published in 'The Lancet' in 1903 and in 'Pediatrics' in 1896, and said that this case well illustrated the clinical conditions met with in those published cases which were diphtheritic and rheumatic. The child died suddenly the following day. The heart muscle showed well-marked degenerative changes. Contrary to the finding in one of his published cases, there were no interstitial changes in the present instance, and the condition was not inflamma-

tory. He thought observations should more frequently be directed to the microscopical examination of the cardiac muscle in all diseases than happened at present. Clinically, in his experience cases of weak cardiac action, and probably of toxæmic origin, were not uncommon, and he thought that such cases as he had called attention to would be more frequently discovered if looked for.

Dr. HUTCHISON said he agreed with Dr. Carpenter's view that the condition of the heart was due to the diphtheritic poison.

Dr. C. O. HAWTHORNE was disposed to agree with Dr. Carpenter. Cases of sudden syncope after diphtheria were of course well known. Dr. Carpenter's case in all probability afforded a demonstration of the manner in which these disasters were produced.

Dr. C. W. CHAPMAN narrated a case of post-diphtheritic rapid cardiac dilatation with syncope.

Dr. PARKES WEBER thought that Dr. Carpenter had hit upon the only possible explanation.

Mr. CLEMENT LUCAS thought the case showed that the condition might easily be overlooked. He called attention to an epidemic of slight sore throat in a surgical ward where the diphtheria bacillus was found in swabs taken from these throats, but the patients had no serious symptoms.

Dr. CARPENTER, in reply, said a girl of six under his care for cardiac failure, with a systolic apex-bruit, a dilated heart, and a pulsating liver and albuminuria, completely recovered in due course and before she developed paralysis of the soft palate, which occurred nearly a month after she was first seen, and thus clearly demonstrated the nature of the toxæmia, though at the time the cause of the heart failure was not obvious. On subsequent inquiry it was found that three weeks before her admission into hospital she had "patches in her throat," for which she received medical treatment.

A Paper on the Treatment of Hernia in Young Children was read by Mr. LOCKHART MUMMERY.

Mr. CLEMENT LUCAS alluded to the special difficulty in young children, that of isolating the vas deferens from the sac. There was a real danger of destruction in inexperienced hands.

Mr. MUMMERY, in reply, said it was precisely that difficulty referred to by Mr. Lucas to which he alluded.

The Organs from a Case of Hemi-hypertrophy were shown by Dr. ROBERT HUTCHISON. He was a healthy, well-developed child with three small capillary nævi in the skin. The left arm and leg were hypertrophied, and to some extent the trunk also. The asymmetry of the limbs was apparently due to an increase of the subcutaneous tissues of the left side, resembling a diffuse lipoma. He subsequently developed an empyema and died. The increased thickness of the left limbs was entirely owing to an increased deposit of subcutaneous fat. The bones were normal. Most of the paired organs were decidedly larger on the left side than on the right. The left lobe of the thymus was larger, but the two lobes of the thyroid were symmetrical. The liver contained some multiple angiomas. He thought the condition must date back to embryonic life, and be in consequence of unequal segmentation in the ovum.

Dr. HAWTHORNE alluded to a case of Dr. MacGregor's, of Glasgow, where the hypertrophy was limited to the lower limb. Post-mortem there was a tumour of the optic thalamus. In view of the relation between the enlarge-

ment of the pituitary body and the condition of acromegaly. Dr. MacGregor's case seemed of much importance.

Dr. PARKES WEBER said the case furnished an excellent example of the association of congenital general overgrowth of a portion of the body with angiomas in the skin, representing vascular overgrowth.

Dr. HUTCHISON, in reply, showed a giant finger which had been amputated, and also an enlarged supra-renal capsule on the same side, from the same patient.

Editorial.

LA GOUTTE DE LAIT.

IN France philanthropic societies have long been in existence to encourage the poor to breast-feed their infants. In 1890 medical out-patient departments for nurslings were organized, which were associated later with the distribution of sterilized milk to the out-patients. In that year Professor Hergott founded at Nancy a maternity society to help mothers delivered at his clinic, and to encourage maternal breast-feeding. The infants had to be produced a month after their birth, they were weighed and examined, their weight was compared with that at their birth, and their mothers were given a gratuity, the amount depending upon the manner in which the infants had been cared for, and also according to the necessities of the family. In ten years close on a thousand pounds were distributed to a little over two thousand poor mothers.

In this charity originated the idea of the Goutte de Lait, and M. Budin, of Paris, organized in 1892, at the Charity Hospital, an out-patient department for nurslings, and associated with it the gratuitous distribution of sterilized milk, at the municipal expense, to mothers who could not nurse their infants. The principal aim, however, of the undertaking was to encourage and direct maternal breast-feeding. M. Budin's example was followed by other accoucheurs in Paris.

Some months later M. Variot, at the Belleville Dispensary, organized by private charity a distribution of commercially sterilized milk to the patients at a reduced price, viz. at 2½d. a quart in place of 6d.,

its trade value. This was attended by the most gratifying results. He found that infants who had reached the last stages of wasting were restored to health by these means.

In 1894 a special out-patient department was founded for nurslings at Fécamp by M. Dufour, which was supported by voluntary contributions. To this undertaking he gave the poetic name of *Goutte de Lait*. It was designed for the use of all classes, rich and poor alike. The distribution of milk was partly gratuitous and partly subsidized—those who could afford to pay for the milk helped to meet the cost of its gratuitous distribution.

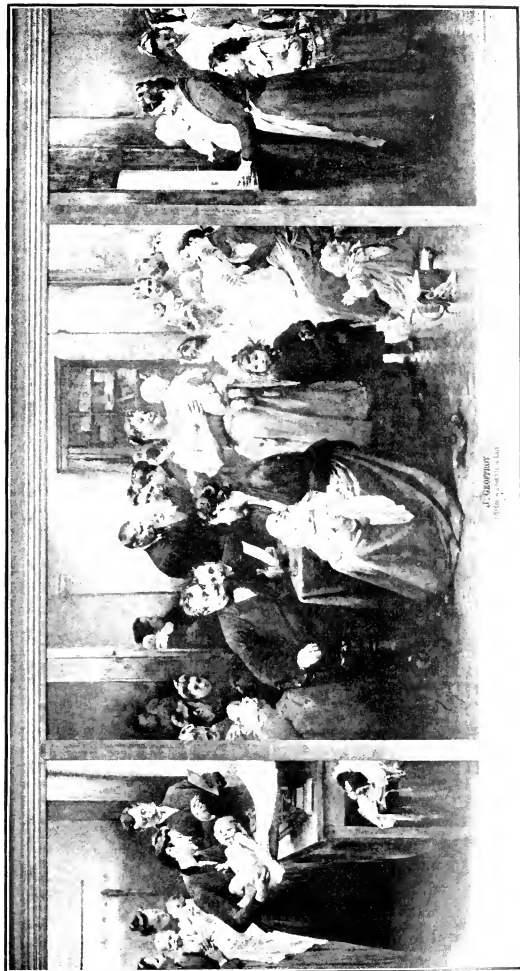
In 1895 *La Goutte de Lait*, of the Belleville Dispensary, was permanently organized and the opportunity is afforded of reproducing the famous painting by Geoffroy, now the property of the City of Paris, which represents this charity in full working order; a great painter's tribute to a noble work. Since its organization and up to 1903 300,000 quarts of milk have been distributed to over 2000 infants.

The idea of the *Goutte de Lait* so happily conceived was cordially accepted by the doctors and the public, and similar institutions have rapidly multiplied in France. Thus there are twenty-five such in operation in Paris, and no less than sixty-five have been started in various parts of France. There is a considerable number in Europe and a few in other parts of the world.

Three essentials have been specified by the French medical authorities for the proper working of a *Goutte de Lait*—(1) the distribution of sterilized milk; (2) regular weighing of the infants; (3) medical supervision.

The importance of medical supervision is well recognised in France. Without it it is held that maternal nursing would become unfashionable with its attendant ills, and that mothers would suffer from the lack of medical advice. Apart from these objections the troubles which would follow the mal-administration of milk, however good that milk might be, are insisted upon.

The Paris *accoucheurs* who keep an eye upon the children born in their clinics distribute milk in small bottles, each one containing sufficient for a meal, which are packed in Soxhlet's baskets. They use the ordinary hospital milk fresh delivered in Paris and sterilized



THE PHILANTHROPIC SOCIETY OF THE GOUTTE DE LAIT OF BELLEVILLE

PAINTED BY E. GEOFFROY.

Exhibited in the Paris Salon, 1903, and won the property of the City of Paris.

on arrival. According to Tarnier's statistics, quoted by Variot, 70 per cent. of the cases coming under the notice of the *accoucheurs* are breast-fed; 24 per cent. have mixed feeding; and only 6 per cent. are bottle-fed. The undertakings of the *accoucheurs* were designed merely for the use of their own patients.

In the *Gouttes de Lait* which are installed at all the Children's Dispensaries in the Paris suburbs the infants, on the contrary, are mostly bottle-fed. The preparation of a multitude of little bottles after Soxhlet's methods is thought to be too great an undertaking. At these institutions pint flasks of milk which arrive from Normandy and elsewhere commercially sterilized and hermetically sealed with paraffin corks are generally favoured by physicians. The proper quantity of milk for each feed according to the age and stomach capacity of the infant is obtained by the use of a properly graduated bottle.

In France it is customary to order whole milk at three or four months of age, but prior to that the admixture of a third or a fourth part of boiled water and a little sugar are deemed necessary. The addition of sugar of milk is not viewed with favour, and commercial humanized milk after Gaertner's plan and American percentage milk mixtures are disliked. It is thought by French physicians that these methods lower the nutritional value of the product and predispose the infants to scurvy. Simple milk mixtures appear to them to be the least injurious and the most efficacious in rearing young infants.

From Paris it is well to turn to the French provinces and witness the working of a provincial *Goutte de Lait*, that of Saint Pol-sur-Mer, near Dunkerque, under the guidance of M. Aussett, of the University of Lille. The mothers meet weekly on a Sunday in a large room for the purpose. Here they undress their babies. The infant is then wrapped in a blanket, weighed, and its weight is inscribed on a paper card, which is presented in an adjoining apartment to the physician in charge along with the patient. The case is examined, drugs are prescribed if necessary, and gratuitously. The appropriate number of bottles of pasteurized milk are then ordered. The milk is distributed daily at the premises of the society. Each infant has a double supply of bottles in two baskets which are personal to it. On the mother's arrival at the *dépôt* the

full bottles are exchanged for the empty ones—gratuitously to those who cannot afford to pay for them. To the rich the milk is sold. Children are assisted from birth up to fifteen months old. The milk arrives at the Goutte de Lait in locked cans from the dairy farm, and is pasteurized by Contant's method immediately on its arrival. The little bottles of pasteurized milk are then plunged into troughs filled with cold water, where they remain until the arrival of the mothers, who are instructed to treat them in a similar way on their arrival at home, and keep them there until they are required. The monthly nurse of the place assists while out-patients are being seen by the doctor, and she pays frequent surprise visits to the homes of the patients who are under treatment. M. Ausset prefers pasteurization on the ground that sterilization renders the milk indigestible, decreases its nutritive properties, and weakens its coagulability by reason of the precipitation of the soluble phosphates along with other well-known chemical arguments. He adduces an important clinical argument in favour of pasteurization, and that is that with this method he can feed infants from the first on whole milk and with good results, whereas with sterilization he found it necessary to dilute the milk up to the fourth month of age. Under the auspices of the Goutte de Lait the town infantile mortality rate was 20·9 per cent. for 1902-3, whereas the average for the five years previous was 28·8 per cent. During the former period the infantile death-rate for the Goutte de Lait was 6·7 per cent.

France, faced by a decreasing birth-rate and a high mortality infantile rate, was in danger of extinction. To increase the birth-rate was not feasible, but a reduction in the number of infantile deaths was found well within the powers of preventive medicine, and the advent of the Gouttes de Lait have for the time being solved this social problem. What can be done in France can well be accomplished in England. The superiority of pasteurization over sterilization is being recognised in some quarters in that country, but what apparently has not received sufficient attention is the necessity for cleanliness—given a clean milk their mortality would no doubt be still further reduced. A healthy life for the milch cows, the exclusion of those that are tuberculous, a suitable food supply, a proper domicile for the animals, and cleanliness in all that appertains

to them and their product are of great importance. It is futile to hope for cleanliness from those who have been trained to filthy methods, and the milkmen of the future must be properly educated. In our last issue we advocated the formation of Milk Dispensaries at our children's hospitals. These charities could undertake the functions of the Gouttes de Lait of France in their own districts, and they are the suitable authorities in whose charge such undertakings could well be placed, seeing that their physicians are trained experts in the treatment of infantile disorders and in the ordering of infantile dietaries. The thrusting of municipal authorities into the breech as infant food purveyors and prescribers cannot be recommended. The extinction of one form of quackery—the proprietary infant food—and its replacement by another and equally objectionable variety, the municipal infant food, is not in the interests of the people for whose benefit it has been devised, and municipalities are no more qualified to preside over infantile dietetics and infantile bowel complaints, which cannot be dissociated, than are the proprietary food vendors. The municipal milk dole *divorced from medical guidance*, as is now being tried in Battersea and Liverpool, is not a system of relief that can be recommended. Infants cannot be fed with mathematical precision; so much the age and size of the child so much the stock milk mixture required is not unfortunately the correct solution of the dietetic problem. Many of the children have digestive peculiarities which have to be studied by those who would rear them successfully, and successful rearing, after all, is the aim of all such praiseworthy enterprises. There is yet another serious drawback to the injudicious distribution of municipal milk, the encouragement that will be given to mothers to abandon breast feeding, a most serious loss to nurslings. Municipal milk should, therefore, if the plan is to receive the sanction of medical experts, be prescribed by medical men, the only right and safe way of distributing it.

Medical supervision could be obtained in one or two ways. One way would be the dispensing of milk on presentation of a doctor's prescription at the depôt so that children would then remain under the care of their own medical men. Another would be to place the various municipal milk depôts under expert medical superintendence

as in the French Goutte de Lait system. Or a combination of these plans might be adopted.

Where there are but few children's hospitals milk dispensaries would be a necessity, and even in London, with its various children's hospitals as adjuncts, additional milk dispensaries would have to be provided to meet the demand and cover the ground.

The advantages to be derived from the promotion of milk dispensaries under municipal control would be that there would be no lack of funds, that every ratepayer would contribute his share of the cost of their maintenance, and that an unlimited number of infants could be reared under the direction of the prescribers.

The sanitary authorities have a great work to their hands if they will but turn their attention to a fruitful field of enterprise. Let them concentrate their energies on the production of a clean milk, the lack of which is at the root of many infantile evils, of much suffering, and numerous infantile deaths. Sanitary authorities at the present time are not empowered to raise the standard of cleanliness which is now at a disgustingly low level. Chemical additions and abstractions can be guarded against by the fear of detection and punishment; the pollution of milk by pathogenic germs can be controlled, but the production, collection, and distribution of milk under the most unwholesome and insanitary auspices are out of range of the weapons of the sanitary authorities. It is these weapons, to be directed against death and disease that now lurk in the family milkjng, which it is so desirable to strengthen. Sanitary authorities must not only aim at ensuring cleanliness of methods of milk production, but means must be devised to prevent contamination and decomposition during transit by road and rail and at the milk shops. The carriage of milk in sealed pint bottles, as adopted in Paris by the Gallia Company, would be a great safeguard with which might be associated the adoption of special refrigerator vans for milk transit. The milk shop in such a case might be fitted with troughs for iced water, as in the Gouttes de Lait, in which the bottles would be deposited on their arrival. For retail distribution printed labels of instructions as to the preservation of the article could be affixed to the bottles on delivery to the customer. There can be no doubt that sterilization

and pasteurization, in addition to the numerous drawbacks incidental to their use, produce scurvy in infants fed on milk so treated. There are numerous cases on record of the disease being produced by these methods which have been devised to retard otherwise rapid decomposition in an animal product which it is the custom to collect and distribute without proper regard being shown to cleanliness. It is questionable whether these processes are in the least necessary if the problem of how to obtain and distribute a pure milk be solved by the sanitary authorities. Sterilization and pasteurization—the latter method is the better of the two—have certain advantages under existing conditions, but their disadvantages are so numerous that wherever possible they should be discouraged. Municipal sterilised and humanised milk may be looked upon as especially deadly in addition to its other drawbacks which have been already commented upon.

The adoption of the French system of the *Goutte de Lait* in this country under expert medical guidance, coupled with the distribution of milk of approved cleanliness, would prove of immense service to our infantile population and to our future national physique. The urgent necessity for the formation of such charities in our midst is well worthy the serious attention of philanthropists who are in search of a good work. Given the necessary funds a beginning could be made by providing our children's hospitals with milk dispensaries, the need for which they now feel so acutely. It is an open secret that the North-Eastern Hospital for Children, London, a pioneer institution, is desirous of at once inaugurating a milk dispensary, and lack of funds is the sole deterrent. The wealthy philanthropist would experience a difficulty in finding a nobler work to his hand or a more worthy charity at which to initiate the scheme. Other equally deserving institutions are doubtless of the same mind, but in a similar impecunious plight.

The commanding intellect is given to but few men to raise during life a monument in stone to their memory like that of St. Paul's Cathedral, but the opportunity is afforded to a multitude of persons, more wealthy though less mentally endowed than its famous architect, of raising to themselves an enduring sentient monument in healthy flesh and blood, and, to use Sir Christopher Wren's apt reply, made to an enquirer who while being personally conducted over the

edifice drew attention to a supposed omission, "*Si monumentum requiris circumspice.*"

Excerpta Puerilia.

The Ambidextral Culture Society.—At a meeting of the above society, held at the Medical Society's Rooms, on March the 16th, the secretary of the society, Mr. Jackson, read a paper on "The Physiology of Simultaneous Ambidextral Work." There was an attendance of over seventy, a noteworthy feature being the large preponderance of the fair sex.

After reminding us of the great importance of the hands as the chief medium we possess in "crystallizing human thought into visible speech, and human conception into palpable realities," the lecturer proceeded to develop his position; this, briefly stated, appears to be that each half of the brain is capable of independent *and simultaneous* action; so that, were we to habitually cultivate equal and simultaneous use of our two hands, we should develop our brain to a far greater extent than is now the case. In fact, we neglect almost half of our opportunity for development. The lecturer quoted some interesting observations from the lives of individuals so far apart as Sir Edwin Landseer and Paul Cinquevalli, to show the really remarkable extent to which ambidexterity—an incongruous term, by the way—can be cultivated. Passing on to the question of the psychological explanation of the underlying processes, Mr. Jackson was on less safe and avowedly unfamiliar ground. If he is interested, however, in pursuing this aspect of the subject, he will find a careful *résumé* by M. Panlhan, in the 'Revue Scientifique' for 1887.

At the conclusion of the address, Miss Daisy Jackson, whose simultaneously written letters are already widely quoted, with four schoolgirls, gave an astonishingly excellent exhibition of the rapidity with which the art can be attained, their evident enthusiasm being clearly a potent factor in the results.

From a medical point of view it must be recognised that, however much we may sympathise with the society's endeavours to increase the effectiveness of the individual by means of manudexterity, such efforts have very definite limitations. It is clear that such demonstrations of simultaneous work as the blackboard writing of the above-mentioned young ladies, and the often quoted manipulations of

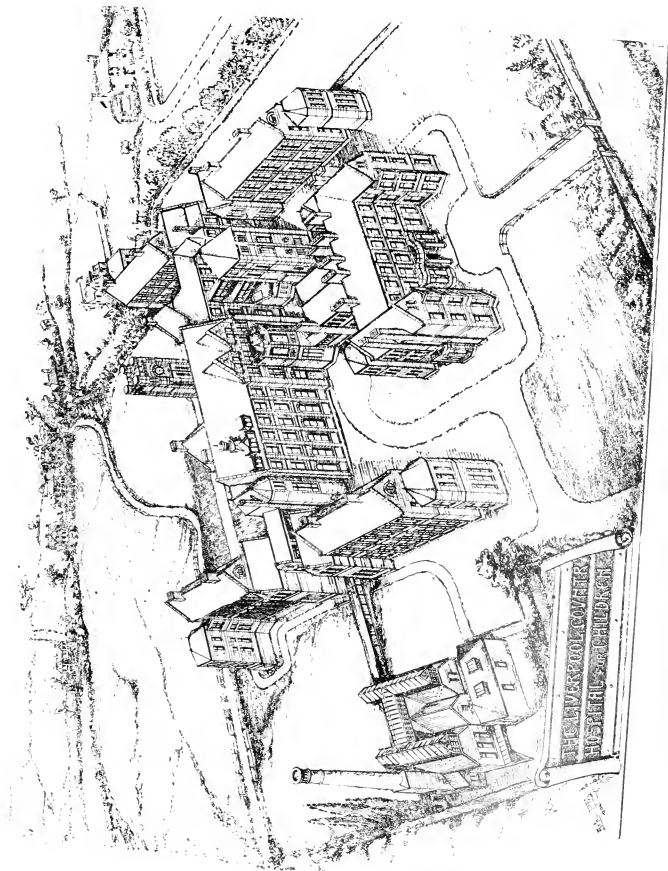
pianists, weavers and other craftsmen, are attained more by the increased prominence given to the process of automatism than by any additional exercise of the highest intellectual faculties. To a certain extent this is a valuable adjunct to the fulfilling of our daily tasks, but we cannot agree that such cultivation, as such, has any educative effect on the cerebral cortex.

Annual meeting of the Liverpool Country Hospital for Children.

—The fifth annual meeting of the Liverpool Country Hospital for Children was held at the Town Hall on the 15th ultimo, the Lord Mayor (Mr. R. A. Hampson) presiding and being accompanied by the Lady Mayoress. The report shows that £27,773 has been collected towards the amount required to enable the committee to proceed with the new buildings, of which we show a bird's-eye view. It is not proposed to build the entire hospital at first, but to provide an administrative block which will be adequate for the completed buildings, thereby preventing the difficulties which have so frequently been encountered in institutions which have required extension. The Lord Mayor having referred to the eminently satisfactory report, which, as he said, dealt with a peculiarly beautiful form of charity, commended the action of an anonymous donor of £3000, who had given this sum subject to the condition that no building should be commenced until £30,000 had been collected, and that £10,000 should be set aside for endowment purposes. The Chairman (Lieut.-Col. Montgomery, V.D.) and the whole committee are to be congratulated for the way in which they have by individual effort influenced many people to contribute to the funds of the institution and to become interested in many other ways, and the Chairman of the Building Committee (Mr. Andrew Gibson) merits the sincerest thanks of all concerned for the endless time, thought, and energy which he has bestowed upon the plans in conjunction with Mr. A. P. Fry, the architect, who has designed an excellent hospital in which every provision has been made for the treatment of the patients and for the accommodation of an adequate staff.

Distribution of sterilized humanized milk by the Liverpool Corporation.

—Dr. Hope, the Medical Officer of Health for Liverpool, read an interesting paper at the Liverpool Medical Institution on the 17th of March, in which he detailed the work which is being done by the Corporation of Liverpool in the preparation and distribution of humanized sterilized milk for the use of infants whose mothers are unable to suckle them. Having given an account of the sources from which the milk is derived and of the means which are taken



THE LIVERPOOL POOR LAW
UNION, AND THE
HOSPITAL FOR CHILDREN

to ensure its purity and freshness, he proceeded to recite the methods which are adopted for keeping records of the cases as to the effects upon the health of the children, and it was made clear that in over 50 per cent. of those for whom help was sought at the depôts the children were ill, and that this sterilized milk was being tried as a last resource. A large number of the infants had been recommended to try the milk by medical attendants both in hospital and private practice, and the results on the whole had been excellent. Fortnightly weighings are carried out, and altogether the system has been very carefully organised. The milk is prepared in several strengths, suited for children of from one to two weeks, two to eight weeks, two to three months, three to five months, five to seven months, and over seven months, the milk being supplied in bottles, each containing a sufficient amount for one feeding. Dr. Hope pointed out that without attempting to draw too close deductions, the fact stands out that out of 4453 infants coming promiscuously to the depôts, at varied ages and in conditions of health below the average, the mortality was 78 per 1000, as against 159 per 1000 for the whole city, and 88 to 118 for the best districts, and 212 to 215 for the worst; but that it must be remembered that in the 159 per 1000 for the whole city, and 88 to 118 for the best districts, and 212 to 215 for the worst districts, are included also breast-fed infants; clearly, if breast-fed infants were excluded and artificially fed infants only taken into account, the rate of mortality amongst them would be enormously higher, and would show even more forcibly the advantages of the sterilized food, which, of course, is an artificial food, over other methods of artificial feeding.

Dr. Hope pointed out the value of these figures, which he considered to be clearly and strongly in favour of persevering with the supply of this milk. But that the figures are by no means the only evidences of the value of the milk; there being the evidence of parents, of medical men, and of personal observation, all strongly pointing to instances repeated over and over again, in which to the use of the milk has been attributed the saving of the child's life. The question appears to narrow itself down to—What would these infants be fed on if they did not get this milk?

“Penny-dreadfuls.”—The ‘Daily Chronicle’ has an article upon boys’ “dreadfuls” and their effect upon their character. It remarks that two or three weeks ago, in a West London police-court, a boy of fourteen appeared who had been arrested for searching for a secret

cavern which some tale had led him to believe existed in Holland Park. In Edinburgh also recently a band of boy burglars established their den in an unoccupied house at Portobello, and equipped themselves with lanterns, tools, and other implements which they had stolen from other dwellings. A few years ago, also, we remember hearing of two or three boys who started from London on a buccaneering expedition in a leaky boat, with an old blunderbuss, a loaf or two, and other provisions. They succeeded, apparently, in reaching some spot below Gravesend, where the Thames police or similar water guardians became interested in their doings and arranged for their transference home again. The general purport of the penny-dreadful is to glorify in extravagant language deeds of prowess in which blood must "spout like water from a fountain." If in the old days of chivalry the exaltation of valour into the highest place amongst the virtues could make so fine a character as the Black Prince deaf to imploring cries for mercy from women and children about to die in the Sack of Limoges, while he was not insensitive to the skill and bravery of French knights fighting for their lives, and commanded that to them quarter should be given, it is easy to understand how easily a youthful mind can become unbalanced by a foolish presentation of the importance of physical strength and skill associated with a disregard for human life. This sort of thing, says the 'Daily Chronicle,' is depraving to the healthy and most pernicious to the weak mind. Boys, naturally thoughtless and unreasoning, gain false views of life from the reading of such trash. If it be true that an increasing tendency to brutality, and even homicide, is displayed by the youth of to-day, it is right to inquire how far it may be due to the perusal of the "dreadfuls" now so widely circulated.

The "penny-dreadfuls" no doubt stimulate the imagination of boys in unhealthy channels, but it has always seemed to us that the advertisement placards of second-rate theatrical performances must have an equally baneful influence. How many times such placards may have suggested the idea of murder to a mind brooding over some ill none of us can tell.

Herbert Spencer and vaccination.—A writer to a Scotch paper sends a quotation from Herbert Spencer upon vaccination which is interesting as an illustration of illogical reasoning by a great thinker. The following is the quotation :

"It is held that the immunity produced by vaccination implies some change in the components of the body—a necessary assumption.

But if the substances composing the body, solid or liquid or both, have been so modified as to leave them no longer liable to smallpox, is the modification otherwise inoperative? Will anyone dare to say it produces no further effect than that of shielding the patient from a particular disease? You cannot change the constitution in relation to an invading agent, and leave it unchanged in regard to all other invading agents. What must the change be?"

After dealing at length with the various diseases engendered, he continues—

"May it not be thus with another skin disease—that which vaccination gives? If so, we have an explanation of the frightful degeneracy of teeth among young people in recent times; and we need not wonder at the prevalence of weak and defective eyes among them. Be these suggestions true or not, one thing is certain—the assumption that vaccination changes the constitution in relation to smallpox and does not otherwise change is sheer folly."

It will be noticed that Mr. Spencer first assumes that smallpox is primarily a skin disease. This, of course, is want of knowledge rather than want of reason. Assuming, however, that smallpox is primarily a skin disease, he naturally concludes that vaccinia is also. And having satisfied himself upon such a point, he considers that decay of the teeth and defective eyesight may both be consequences of this acquired skin disease. Thinker as he was, although not learned in medical knowledge, a little reflection should have told him that, as far as the skin at least is concerned, the manifestation of the effects of vaccination are, under ordinary circumstances, extremely brief; while that of decay of the teeth is progressive. There is no more reason why vaccination should lead to decay of the teeth than it should produce premature loss of colour in the hair. Besides, in measles and scarlet fever the affection of the skin is more general than occurs as a result of vaccination, and nearly as many children suffer from one or other of these diseases or both as are vaccinated. Why should not, therefore, diseases of the teeth and eyes be put down to these diseases? While, however, we consider the idea of Herbert Spencer on this subject absurd, we believe that suppurative eczema does sometimes follow vaccination for the simple reason that pus-forming organisms may set up the disease in any child. Pus from the vaccinated area becomes transferred to other parts of the body, and impetigo is set up. The skin disease, however, is no evidence of weakened resistance on the part of the child, unless it be a passing loss of power to withstand attacks produced by a lowering of general tone while the child is suffering from the immediate effects of the vaccination.

Abstracts from Current Literature.

Medicine.

Scurvy as a cause of hæmaturia (*Bristol Medical-Chirurgical Journal*, December, 1903).—**Shingleton Smith** calls attention to scurvy as a cause of hæmaturia in the infant and in old age. Both of his patients were fed on sterilized milk and proprietary foods, and in both patients the hæmorrhage rapidly subsided on the administration of an antiscorbutic diet. In the infant hæmaturia was associated with scorbutic paresis of the lower extremities, and subsequently spongy gums developed, and it was not until then that the nature of the ailment was recognised. Dr. Smith remarks that the case shows that the hæmaturia may be almost the only manifestation of scurvy in the infant. That hæmaturia is not infrequent in infants and children as a manifestation of scurvy, and may be the sole manifestation, is well illustrated by the 'Reports of the Society for the Study of Disease in Children.' In vol. i (1900-1901) Dr. George Carpenter, in the discussion on a case of paroxysmal albuminuria and hæmoglobinuria shown by Mr. D'Arcy Power, expressed the opinion that cases of hæmaturia in children were not infrequently scorbutic, and the case shown subsequently developed typical scurvy. He again alludes to this condition when narrating a case of scurvy in a rickety boy of 5½ years. In vol. ii (1901-1902) there is an account of a case of hæmaturia in a female infant of 8 months, shown by Dr. Campbell Pope, who was thought to have a stone in the bladder, and was sounded when seven months old. Epistaxis was the first sign in the case, and subsequently she developed pain in the leg. When seen a month after the sounding she had developed hæmaturia and subperiosteal hæmorrhages of both legs and one thigh, and spongy gums. She had been fed on sterilized humanized milk. In vol. iii (1902-1903) Dr. George Carpenter showed a case of scorbutic hæmaturia in a child of 7 months who had been fed on a malted food and a Swiss milk. She was paretic, but there were no periosteal hæmorrhages. The gums were spongy and the child was anæmic and rickety, and he again called attention to the fact that scorbutic children were not necessarily rickety or anæmic. He brought the case before the Society because it illustrated what he took to be an important point, which was not generally recognised, viz., the fact that hæmaturia in infants and children usually denoted scurvy, and moreover was not infrequently the ONLY sign of that disorder. Dr. G. A. Sutherland, in the discussion that followed, spoke of the frequency of hæmaturia in infants as a scorbutic manifestation, and instanced an autopsy where an extravasation of blood was found in the bladder of a scorbutic infant, and suggested on that finding that vesical as well as renal hæmorrhage might occur in scurvy in infants.

THEODORE FISHER.

Cases of infantile scurvy (*Bristol Medical-Chirurgical Journal*, December, 1903).—**Bertram Rogers** expresses the opinion that cases "are not frequently seen at the large institutions in Bristol," and narrates the case of a rickety infant of 9 months old who had been fed on sterilized milk and a proprietary food. He had proptosis from hæmorrhage into the orbit, the gums were soft and hæmorrhagic, the femora were enlarged with fusi-

form swellings, and there was a similar swelling on one arm. The whole body was covered with sudamina. The child improved rapidly with fresh milk and orange juice daily. The proprietary food was stopped. He had one or two relapses while under treatment. In the same number Dr. Christopher Elliot narrates another case of infantile scurvy, and states that "cases of the above kind are by no means common," and thinks them "for this reason alone worthy of being put on record." The infant was eight months old. Both thighs were affected. The child was not rickety, but was very ill and anæmic. She had been brought up entirely on a proprietary food. She recovered under a change of diet and some fresh lemon juice. He had also been present at a post-mortem in a fatal case. The lower extremities were affected, and there was not only subperiosteal hæmorrhage, but there was infiltration of blood into the cancellous tissue of the long bones as well as into the soft parts surrounding them.

THEODORE FISHER.

Observations on renal retinitis (*Royal London Ophthalmic Hospital Reports,* vol. xv, part iv).—**E. Nettleship**, in his paper, which deals exhaustively with the subject, calls attention to the need of more information as to cases of juvenile renal retinitis. Under this section he narrates the case of a girl of 11 years who had "double neuro-retinitis suggestive of renal disease;" a trace of albumen in a urine of sp. gr. 1010; there was no post-mortem. In a boy aged 16 years there was polyuria at sixteen months old and scarlet fever at seven years. When under care the urine was of sp. gr. 1010, of normal quantity, contained much albumen, but was free from casts. He had diffuse neuro-retinitis. One kidney was absent, the other small and cystic without visible healthy structure. The aortic valves were diseased and the heart dilated. The parietal bones were "thick and heavy." A girl of 12 years had severe neuro-retinitis and a cloud of albumen in the urine. The left ventricle was hypertrophied. She had scarlet fever at the age of four years and died when fifteen years old of advanced phthisis. Post mortem the kidneys were granular, the lungs and intestines tuberculous, and amyloid reactions were obtained in the viscera. A female aged 8 years was taken ill at five and a half years old with failure of sight, and was said to have had "Bright's disease" by an ophthalmic surgeon who examined her at the time. Her urine was of sp. gr. 1010 and contained a cloud of albumen. The optic discs were very white, the veins showed thick white lines, and shining white spots were noticed at the yellow spot. The radial artery was "too hard" and the heart hypertrophied. At the age of thirteen years the urine was of sp. gr. 1010 and contained no albumen when examined on a single occasion. She is now grown up and about twenty-five years old. Dr. George Carpenter, at the meeting of the British Medical Association at Swansea in 1903, in the discussion on Mr. Nettleship's paper, when narrating his experiences of neuro-retinitis in children both with interstitial and parenchymatous nephritis, said that condition would be found more frequently if routine examinations of the fundi were made in such cases, and that evidence was accumulating in favour of the former being often due to hereditary syphilis. Mr. Hartridge also mentioned a case of renal retinitis in a boy of 12 years under his care who was probably the subject of inherited syphilis. The writer draws attention to hyaline thickening of the retinal arteries, indicated by intensification of the bright streak, and to compression of the veins when crossing degenerate arteries, and to the unequal distribution of

these changes throughout the fundus. If there be decided hyaline thickening of the retinal arteries, granular kidney disease may be suspected, and it is well, therefore, to look for the appearance of such arterial disease by routine in young subjects.

THEODORE FISHER.

The albuminuria of adolescence (*Prager med. Wochenschrift*, vol. xxix, Nos. 1—3).—**Alfred Pribram** divides the views of various writers upon this subject into two great groups. In the first of these stress is laid mainly upon the intermittent, or at least cyclic, occurrence of the albuminuria. The second restricts the definition of albuminuria of adolescence to cases of a certain age, presenting a definite clinical picture, and characterised by the occurrence of postural or (as the writer prefers to term it) orthotic albuminuria. The first group necessarily includes not alone cases in which the urine is free from tube-casts, but also those in which casts are a well-marked feature, and whose subsequent course may prove them to be akin to, if not identical with, true nephritis. In such cases the existence of structural alterations in the kidneys must always be suspected. The second group includes only those cases in which the urine shows at most an occasional hyaline tube-cast, and in which there exists a definite relationship between the erect posture of the body and the appearance of albumen in the urine. In these cases the possibility of gross structural changes in the kidneys is precluded. The writer ranges himself on the side of those who belong to the second group of observers, and prefers the term of albuminuria of puberty instead of that of albuminuria of adolescence. Whilst admitting that in the majority of cases an intermittent albuminuria is the sequel to, or the precursor of, true nephritis, he claims that there is a group of cases in which no such connection exists. He has observed for many years or months a number of such cases in which he has never found even a solitary hyaline cast in the urine. After the albuminuria has ceased the patients have continued healthy so far as their renal functions are concerned, and have subsequently passed safely through pregnancies, attacks of scarlet fever, and other conditions which are liable to be complicated by nephritis. The condition occurs in children and very young adults, *i. e.*, at the period of most rapid growth. The subjects frequently belong to neurotic families, and several members of a family are occasionally affected. Clinically the disease is characterised by pallor and feelings of apathy and languor. Mere changes from the recumbent to the erect posture may produce in these cases albuminuria, which subsides when the recumbent attitude is resumed. During an attack the urine contains albumen in a form that can be readily precipitated by the potassium ferrocyanide and acetic acid test: the specific gravity of the urine is raised; there is an increase in quantity of urea and alkalies, and occasionally of the uric acid. In discussing the various theories in regard to the pathology of this curious condition, the writer leans to the explanation of Schaps and Lommel, who maintain that the albuminuria of adolescence depends upon alterations occurring at this period in the ratio of growth of the cardio-vascular system to that of the body generally. He himself believes that it depends in some way upon the increased rate of growth at this time of the bone-marrow, and points to the analogy of the occurrence of the Bence-Jones proteid in some diseases of the bones. The prognosis is very favourable in those cases in which no tube-casts are found, and in which the albumen disappears on resuming the recumbent position, especially if the urine during an attack has a high specific gravity. The treatment consists mainly of rest in bed for two to four weeks until the albuminuria has

subsided. The patient is then put through graduated movements, but should at no time indulge in violent exercises. The diet need not be restricted, but alcohol must be entirely prohibited. As regards medicinal treatment, iron preparations may be administered, but arsenic should be withheld on account of possible irritative action upon the kidneys. After recovery has taken place the patient should avoid sea bathing or cold-water baths.

E. P. BAUMANN.

Nephritis in new-born and young infants (*Rivist. di Clin. Pedriat.*, 1903, p. 510).—E. Mensi has observed seventeen cases, aged 10 to 40 days. The urine, obtained by catheterisation, showed the presence of albumen, epithelial and hyaline casts. He states that the most frequent cause is broncho-pneumonia, which was present in fourteen cases. The lesions, which are tubular, specially affect the epithelium of the cortical substance, rarely the vascular or glomerular elements. There was no exact or constant correspondence between the renal lesion and the clinical symptoms. In addition to disturbance of circulation and enervation, six of the cases had sclerodema, *i. e.* hardness and serous infiltration of the subcutaneous cellular tissue more or less diffuse; eight had sclerema, *i. e.* hardening and dryness of the subcutaneous fat. In two cases only were noticed attacks of eclampsia more or less violent and generalised. The urine in eleven cases was not much diminished in quantity, scanty in six, occasionally leading to anuria; these variations bore no relation to the sclerodema. In some cases hereditary influence was noticed, the mothers having either chronic nephritis or eclampsia. The prognosis is identical with that of the cause. "Renadene" was administered in one case, one gramme per diem, and seemed to have a beneficial influence on the convulsions, the infant recovering in ten days.

VINCENT DICKINSON.

A case of polyuria in a child aged 3 years (*Reports of The Society for the Study of Disease in Children*, vol. 1, p. 17).—J. H. Sequeira narrates a boy aged 2 years and 10 months was admitted into the North-Eastern Hospital for Children on April the 30th, 1900. The family history presented nothing of importance. The patient was suckled until he was fourteen months old. He had whooping-cough at the age of eight months, and since then the mother had noticed that the child suffered from great thirst, with increased frequency of micturition.

On admission the patient was an ill-nourished child, weighing only 16½ pounds. The skin was unusually dry and pale, except on the cheeks, where there was a red flush. There were evident signs of rickets. The urine was pale yellow in colour: sp. gr. 1010; reaction, alkaline; a faint trace of albumen was present, and at times reached 1 per cent.; no deposit and no tube-casts; the daily quantity which could be collected varied from 19 to 40 ounces, besides some which could not be measured. The amount of fluid drunk daily varied from 1 to 2 pints. Albumen was not always present in the urine. The patient's temperature, which was usually normal, rose on two or three occasions to 100° F. The child was removed from the hospital, and was re-admitted on September the 26th, 1900. The urine at that time was still alkaline, of a specific gravity of 1015, and 36 ounces passed as a daily average. The child had steadily been losing flesh. The retinæ were examined and found to be healthy. The pulse was somewhat frequent; its tension was not raised. The child remained in very much the same condition for several months, but steadily lost weight. By centrifugalising the

urine a small deposit was obtained, which was found to contain a very few granular tube-casts. The child at last became comatosed and died, about nine months after the first admission to the hospital, from what appeared to be uræmia.

At the post-mortem examination the kidneys were found to be large and granular, and showed cirrhotic changes on microscopical examination. There was some hypertrophy of the left ventricle of the heart. The other organs were normal.

JAMES E. H. SAWYER.

A case of chronic interstitial nephritis in a girl aged 7 years (*Reports of The Society for the Study of Disease in Children*, vol. 1, p. 69).

—**Leonard Guthrie** narrates a girl aged 7 years and 3 months was admitted into Paddington Green Children's Hospital on January the 6th, 1893. The father died of rheumatic fever and "some brain trouble." The mother was fairly healthy, but was "subject to fits," and had had six miscarriages at varying intervals. Two children had died from scarlet fever. Four children were alive, two of whom had had rheumatic fever. The patient was weakly as an infant, and suffered from diarrhoea and vomiting, until weaned at twelve months. With the exception of measles, when "quite young," she had no illness until two months before admission. She then became the subject of attacks of frontal headache and vomiting, which came on two or three times a week, chiefly in the morning. She often shrieked out with pain, and felt very giddy, and she staggered during one of these attacks which lasted about one hour. She complained that she could not see. Vomiting often occurred after taking food; the appetite for food was good, and she generally slept well, although she awoke, at times, screaming with headache. It was noticed that she had been passing an increasing amount of urine.

On admission she was thin and undersized, dull and listless, and her eyes were sunken and her complexion sallow. The skin was dirty-looking, coarse, and dry; there was no œdema; the finger-nails were somewhat clubbed. The ocular fundi were normal, and nothing abnormal was found on examination of the lungs. The apex-beat of the heart was in the sixth interspace, just outside the left nipple-line. The second aortic sound was accentuated. The pulse was very small, hard, and thready, and of extremely high tension—90 per minute. The brachial artery could be rolled under the finger as a hard, small cord. Neither the liver nor the spleen was enlarged. The urine was of a pale straw colour; sp. gr. 1010; neutral; albumen, " $\frac{1}{2}$ " on boiling.

On January the 10th she was drowsy, and cried once or twice with headache. A few granular casts were found in the urine. On the 17th she had a convulsive seizure, which lasted about half an hour, and in which there was twitching of the right facial muscles, of the right arm and leg, and also a little of the left arm. The breathing was very shallow, and of Cheyne-Stokes variety; and the pulse, at first slow, became rapid and feeble. On January the 30th there was another fit, in which there was loss of consciousness, lividity, and foaming at the mouth. During this seizure the breathing, which was at first stertorous, later became shallow. The right side was again affected. There was conjugate deviation of the eyes towards the right side, and there was also horizontal nystagmus. The right arm and leg, in which there was twitching, became flexed and then rigid. Under chloroform the breathing became fuller and more even, and the spastic movements and rigidity disappeared.

She wasted rapidly. There was never any trace of oedema. The skin of the abdomen became wrinkled and inelastic. On February the 4th there was some left-sided paresis of the face, arm, and leg, and the tongue was protruded towards the left. She had difficulty in swallowing. The knee-jerks were absent. On the next day the hemiparesis had disappeared, and there was no difficulty in swallowing: she complained of thirst. The apex-beat of the heart was one inch outside the left nipple-line, in the sixth space, and the second aortic sound was accentuated. On February the 8th, coma supervening, she died at 5 a.m. The daily quantity of urine passed varied considerably from time to time, and on the days on which the fits occurred it was very small. The amounts passed were—

	January.								February.		
	16	17	18	19	20	24	30	31	1	2	4
Urine in ounces	34	25	14	50	84	64	18	18	73	106	22

There was no incontinence of urine during the fits: on two occasions (on January the 24th and February the 4th) there was some hæmaturia.

Post-mortem examination.—The body was extremely emaciated. There was no trace of oedema. There were some purpuric spots over the sacrum, and also one on the forehead. There was a general brownish-yellow discoloration of the skin. The left ventricle of the heart was extremely hypertrophied and slightly dilated. There was a small quantity of clear fluid in the pericardium. The cardiac valves were healthy. At the apex of the left lung there was a tubercular mass about the size of a hazel-nut. There was some general venous congestion of the liver. The spleen was normal in appearance. Both kidneys were distorted, puckered, and shapeless. In each the capsule was adherent in parts, and where it was most adherent, there the distortion was chiefly marked. On section they were found to be of a mottled yellow colour, and coarse in appearance. Their consistency was tougher than normal. There were a good many small hæmorrhagic patches scattered through their substance. There was little apparent distinction between cortex and medulla, and the cortex, where it could be identified, was atrophied. The left kidney weighed $1\frac{1}{2}$ ounces, and its pelvis was dilated, but not the ureter. The right kidney weighed $3\frac{1}{4}$ ounces. A microscopical examination of the kidneys showed that the condition was "one of diffuse interstitial nephritis, both of old standing and apparently of recent date." On examination of the brain a hæmorrhage as large as a hen's egg was found in the right centrum ovale majus, and another as large as a golf ball in the right occipital lobe. There were several small hæmorrhages in other portions of the hemispheres, varying in size from a pin's head to a pea. No source of the hæmorrhages could be discovered. The walls of the arterioles, both meningeal and cerebral, were found, upon microscopical examination, to be thickened in all their coats.

Dr. Guthrie discussed the diagnosis and the etiology of chronic interstitial nephritis in children. He brought forward arguments in support of the view that syphilis may be the chief factor in the causation of the condition.

JAMES E. H. SAWYER.

Constitutio Lymphatica: Lymphatism (*Transactions of the Royal Academy of Medicine in Ireland, vol. XIX.*).—George Peacocke records five cases of sudden death in young children.

I. A child went to bed perfectly well at night, but on waking in the morning the parents thought he "looked queer," and immediately brought

him to the Adelaide Hospital, where, on examination, it was found that life was extinct. The child was well nourished and cared for. A very thorough autopsy revealed only the following abnormal conditions:—"The thymus seemed unusually large, but no exact measurements were made. The mesenteric glands were greatly enlarged. Peyer's patches were very distinct and swollen, and the solitary follicles throughout the entire intestinal tract were so prominent as to give the appearance of grains of sago closely set in the mucous membrane; this condition was most noticeable in the duodenum and jejunum."

II. A boy, aged 10 years, had been apparently not in his usual health for a few days, but not sufficiently unwell to seek medical advice. He was suddenly seized with an attack that was described as convulsions, and when brought to the Adelaide Hospital was found to be dead. "The post-mortem, as in the previous case, showed that the boy was well cared for. There was slight congestion of one lung. The mesenteric glands were enlarged. Peyer's patches and the solitary follicles prominent and swollen. All the other organs healthy. There is no note taken of the condition of the thymus, so I presume it was at any rate not very large."

III. A child, aged 4 months, was undergoing electrolysis for a naevus on the lower lip, and on several occasions had chloroform. The child was, except for the naevus, an apparently healthy child, well nourished, and in fact rather large. The fatal result did not take place on any of these occasions, which was a matter for congratulation owing to its frequent occurrence. Death took place quite suddenly. "The post-mortem made by Dr. J. Alfred Scott was most exhaustive. No enlarged superficial glands were noticeable. The heart was healthy. One lung showed some congestion, and there was one slightly enlarged bronchial gland. The thyroid and larynx were normal. The thymus measured four inches in length. The mesenteric glands were greatly enlarged. Peyer's patches were more prominent than normal, and the solitary follicles of the large intestines were distinctly enlarged, but not at all to the same extent as in the previous cases. The spleen was firm and somewhat increased in size, but the Malpighian corpuscles were not peculiarly prominent. The brain seemed perfectly healthy."

IV. A small, badly-nourished child, aged 9 months, had been, according to the mother, in his usual health until the day previous, when he seemed to have a slight cold and cough. On the day of his death he had been given his dinner of bacon and cabbage (!), and shortly afterwards was seized with some kind of fit, in which his face became quite black. When brought to the hospital life was extinct. Dr. Alfred Scott made a very thorough post-mortem. "The glands in the axilla were considerably enlarged. The lungs showed a patch of congestion on each side. The bronchial glands were not enlarged. The thyroid and larynx appeared normal. The thymus measured three inches in length. The mesenteric glands were very much enlarged, but there was no evidence of any hyperplasia of the lymphoid structures in the intestine. The spleen was enlarged, and the Malpighian corpuscles were very well marked. The brain was not examined."

V. A boy, aged 6 years, was admitted to the Adelaide Hospital, being suddenly taken ill in the morning with fever, headache, some irregularity of the pupils, and retraction of the head. He also had a discharge from the right ear. He rapidly grew worse, and death ensued within twenty-four hours of the onset of the illness. The following day Dr. Penocke made a post-mortem examination. The brain was healthy. "On opening the thorax I

was struck with the size of the thymus gland, and it occurred to me that possibly I might find further evidence of the lymphatic constitution. The lungs showed evidence of pneumonia. The lower lobe of the left lung was solid and airless, and there was a patch about the size of a walnut in the lower lobe of the right lung, also solid and airless. The heart seemed healthy. Examination of the abdomen revealed great enlargement of the mesenteric glands. The spleen did not seem affected, and the other organs, with the exception of the intestinal tract, appeared normal. On opening the small intestine it was at once apparent that the adenoid tissue was abnormal in appearance, the solitary follicles were very much enlarged and prominent, and Peyer's patches were quite distinct and swollen. The solitary follicles of the large intestine were very distinct, but not so swollen as in the small intestine." Dr. Peacocke adds:—"This case is of very great interest; the cause of death was no doubt primarily pneumonia, . . . but may it not be that he was the subject of lymphatism—the appearances at the post-mortem are very suggestive of this,—and that thus his power of vital resistance being below the normal standard, he was unable to resist the sudden acute attack of pneumonia, and the slender thread of life was quickly snapt across."

Dr. Peacocke has since brought under the notice of the Dublin Biological Club the following additional instances of the disease:

VI. "A boy of fourteen had been in a school for nine months. He did not ever appear to be a very robust boy, his skin being of a yellow colour and his lips always blue. He never was sufficiently ill to need advice, but for the week previous to his death he was laid up with toothache and sore throat, and was recovering nicely. After drinking some hot milk it was noticed he was looking faint, and as he did not seem to rally I was sent for. When I arrived life was extinct." Post-mortem (for the coroner) revealed: "The bronchial tubes were filled with a frothy, slightly purulent secretion; one lung especially was very much congested. Heart normal. In opening the pericardium I cut through what I at once recognised as the thymus: on removing it I found it was 125 mm. in length, 50 mm. in width, 22 c.c. in volume, 25 grms. in weight (according to Friedleben, the maximum corresponding numbers for a normal thymus being 84 mm., 41 mm., and 23 c.c., by some regarded as too high). The mesenteric glands were greatly enlarged. The Malpighian corpuscles of the spleen were prominent and the adenoid tissue of the intestines hypertrophied." Professor Scott reports on the spleen as follows:—"The spleen showed that the centres of many of the Malpighian corpuscles were paler than usual, apparently due to slight increase of connective tissue rather than an endothelial proliferation (as described). The spleen pulp contained an unusual amount of lymphoid tissue, which was somewhat localised, giving the idea of new Malpighian corpuscles forming without the usual relation to the walls of the blood-vessel."

VII. A boy, aged 5 weeks, had had several "weak fits," in which the colour of his face became grey, but had recovered from them. The one preceding his death was a similar attack, but when brought to the hospital he was moribund, and died in a few minutes. Post-mortem examination showed that the solitary follicles of the large intestine were unduly prominent. Peyer's patches were distinct, but "I could hardly say hypertrophied." The spleen was not enlarged, but the Malpighian corpuscles could be easily seen. The mesenteric glands were slightly enlarged. The thymus measured in length 68 mm., in breadth 56 mm.; its volume was 25 c.c.; 26 grms. in weight. It was a bulky thymus, and though little more than half the length

of the thymus in the previous case, it was 3 c.c. more in volume. This, perhaps, more nearly corresponded to some of the cases of thymus Tod reported by earlier writers.

VIII. "I was summoned hurriedly to see a baby, two months old, who was said to be in convulsions. I had been attending the child about ten days previously for an attack of diarrhoea, but he had completely recovered. When I arrived in less than ten minutes' time I found the child dead. I was informed that the nurse had attended to the child at 4 a.m., and he seemed in his usual health. About 7.30, when she awoke, she noticed the child looked queer, and carried him at once to the mother. I believe the child at this time was dead. I was unable to obtain any post-mortem examination, but I cannot regard the case in any other light than that of lymphatism. One point perhaps of some importance is the fact that several other children in this family have enlarged tonsils and, I believe, post-nasal adenoids. Two other children in the same family died in infancy—I believe from convulsions."

Of nine cases recorded and verified by post-mortem examinations, three were in children who at the time of death were apparently in perfect health. In one the child had been ill for twenty-four hours with pneumonia. In the remainder some trivial complaint, such as a slight cold, had been noticed. All were in well-nourished children. The organs chiefly affected were the spleen, thymus, lymphatic glands, and adenoid tissue of the intestines. *Spleen*: Malpighian corpuscles prominent in five; organ enlarged, but Malpighian corpuscles not apparently affected in one; no change in two, and no record in one. *Thymus* enlarged in seven (accurately measured in five); in one case no note, and in one the measurements given are not complete. *Lymphatic glands*: In every case the mesenteric glands were enlarged, but in one only was there enlargement of the superficial glands, and this case, curiously, was the only case in which there was not some evidence of the hypertrophy of the *adenoid tissue in the intestine*. Symptoms during life appear to be (1) pale skin, pasty expression, but fat; (2) superficial glands enlarged; (3) hypertrophy of tonsils and post-nasal adenoids; (4) spleen palpable; (5) thymus percussable; (6) lymphocytosis (Ehrlich). The cause of death is attributed to cardiac paralysis or asphyxia, but it would seem reasonable to advance the hypothesis that the condition which is present in lymphatism is one of lympho-toxaemia. Many such cases must occur in hospitals overlooked by house-surgeons, who make post-mortem examinations for coroners, and many dead children are not examined even at inquests where lymphatism may be present. LANGFORD SYMES.

The relation of the status lymphaticus to sudden death, death under anaesthesia, and infection (*Johns Hopkins Hospital Bulletin*, October, 1903, p. 270.—**George Blumer**).—The views set forth are based upon the personal study of nine cases of sudden death in infancy and childhood, and upon the study of the literature. As to whether it is possible to make a diagnosis of the status lymphaticus before the onset of the attack, which is the immediate cause of death, the author mentions Escherich as stating that such patients usually have a pale, thin skin, a pasty complexion, and a good pad of subcutaneous fat; frequently signs of rachitis or scrofula are present. The superficial lymph-nodes, especially those of the neck and axilla, are enlarged; there are hypertrophy of the tonsils and pharyngeal adenoids, and the spleen is often palpable. Daut adds that a percussible thymus may develop later, and Ewing's work suggests that an increase

in the lymphocytes is probably present. Of the clinical symptoms that precede the attack little is known, though the immediate causes of death are probably only two—cardiac paralysis and asphyxia.

Many of the infants found dead in bed, and of those supposed to have been overlain, belong to this class of cases. Most of these cases dying with symptoms of respiratory difficulty may be classed under the head of thymic asthma: percussion usually reveals the enlarged thymus gland. When the attacks of thymic asthma are not so severe operation has been done, the enlarged thymus removed, and the symptoms relieved.

In regard to sudden death during anaesthesia in such cases, almost all observers agree that there is cardiac failure: at first it was thought, therefore, that chloroform was especially dangerous, but lately it has been shown that ether is also dangerous in the status lymphaticus. Patients with adenoids and those with goitre seem especially liable to death under anaesthesia if the status lymphaticus is also present. In regard to infections and their course in such cases, Daut found that in a series of patients from Escherich's clinic over a quarter of the patients dying from diphtheria presented the picture of the status lymphaticus.

The pathology of the condition is broadly a hyperplasia of the thymus and of the lymphatic tissue all over the body. Other lesions are hypoplasia of the vascular system, and in some cases compression of the trachea; there may be a lymphoid condition of the bone-marrow, and occasionally an enlarged thyroid gland. Microscopically the lesions are generally hyperplastic, along with slight degenerative changes in the proliferated cells composing the germinal centres. Bacteria do not seem to play any part in the causation of the condition.

After discussing the various theories of the cause of death in this condition the author gives as conclusions—

1. The condition known as status lymphaticus is a definite pathological entity.
2. It is probably associated with, if not due to, a condition of intermittent lymphotoxaemia.
3. It may be associated with sudden death, probably as a result of lymphotoxaemia alone in some cases, or as a result of the action of toxic, physical, or psychical injuries, which are rendered much more powerful than usual by the predisposing action of the lymphotoxaemia.
4. In some cases the sudden death is due to asphyxia from pressure of the enlarged thymus on the trachea.
5. The subjects of the status lymphaticus can be recognised clinically in some instances.

(*Archives of Pediatrics.*)

Surgery.

Errors in sex revealed by surgical operation (*Jahrb. f. Sexuelle Zwischenstufen*, 1903, v. Jahrgang).—**Neugebauer** gives a critical analysis of 134 cases of operation on pseudo-hermaphrodites, in particular with regard to errors of sex revealed in the course of the procedures. The cases are divided into six groups. In the first are thirty-eight cases of supposed female children in which an operation for hernia showed the sex to be male. In the second group are four herniotomies in hermaphrodites considered of female sex, two of which proved to be male. In the third group are thirteen cases of male or presumably male children in which, in the course of a herniotomy, a uterus or one or both tubes were found in the

hernial sac or the abdominal cavity. The fourth group contains forty-five cases operated on for a variety of conditions, among which were thirty-two examples of benign or malignant tumour of the sexual organs; in these forty-five cases there were no less than twenty cases of error in sex determination; in nine the sex could not be decided, although in five of these an abdominal section allowed a complete examination. The fifth and sixth groups concern cases in which various operative procedures were carried out on the external genitals.

KEITH MONSARRAT.

On the operative treatment of vertebral tuberculosis (*v. Langenbeck's Archiv.* Bd. LXXI, Hf. 2).—**Wieting** discusses the question under what conditions are operative procedures to be recommended in tuberculosis of the vertebrae. When the disease affects the vertebral arches operative treatment should be undertaken as early as possible, provided the general condition is good. The diagnosis between this condition and the affection of the bodies must of course be first satisfactorily established; the diagnostic point of most importance is the absence of pain on pressure in the long axis of the column when the bodies are unaffected. Abscesses in connection with posterior disease take a course different from that which is usual in anterior disease—they tend to pass backwards between the back muscles and the spines, and both abscess and bone disease can be satisfactorily reached in this region. The prognosis of posterior disease is much more favourable, if treated surgically, than that of anterior disease, and the operation presents no technical difficulties. The technical difficulties in anterior disease are, on the other hand, great, and early operation should not be undertaken here. It is indicated in cases where the spondylitic process has ceased, but symptoms of pressure on the cord show no tendency to disappear or are increasing in severity; also in paralysis when this does not show signs of clearing up after a month's treatment, and in cases without spinal cord symptoms in which processes of repair do not show satisfactory progress after several years' rest. In some cases operation will aim merely at the aiding of repair and the lessening of secretion; in others the bone disease itself can be dealt with. In operating on the vertebral bodies the extremities of the ribs are exposed and portions of one to three, according to requirements, resected with the transverse and articular processes. The greater the angular curvature the easier it is to reach the bodies, and the spinal canal can be satisfactorily opened from the side. The question of the development of retro-pharyngeal abscess is considered at the end of the article, and the writer expresses the view that the great majority, if not all of these abscesses, originate in tuberculous retro-pharyngeal glands.

KEITH MONSARRAT.

Reviews of Books.

THE PHYSIOLOGICAL FEEDING OF INFANTS. By ERIC PRITCHARD, M.A., M.D.Oxon., M.R.C.P.Lond. Pp. 197. Publisher: Henry Kimpton.

IN the first 114 pages of this book the author describes the simple methods of feeding infants, in a clear and elementary manner, and illustrates some of the results of bad methods of feeding by details of cases successfully

treated. The next 66 pages are devoted to the development and physiology of infancy. Although in such limited space it is impossible to treat either subject fully, the work may be honestly recommended as suitable for medical men on commencing practice, and for well-trained nurses or intelligent mothers. It is written in simple non-technical language, with occasional rhetorical touches unusual in scientific works, but more common in books meant to impress the lay mind. In some respects the author is both too dogmatic and too egoistic. To any one unacquainted with medical works it might appear that he alone is a competent authority in this country on the subject of infant-feeding and development. Occasional reference is, however, made to the work of American and foreign experts. On the subject of breast-feeding the advice given is quite sound, though at times the author's methods involve an amount of trouble rarely necessary. Few physicians attach the importance ascribed by the author to a baby getting too much breast-milk at a nursing. The regurgitation, immediately following, generally counteracts over-distension of the stomach from over-feeding. It seems rather unnecessary, and somewhat of a hardship to mother and child, that the latter should be weighed both before and after every time it is put to the breast. Such a proceeding is an exaggeration of the value of weighing, and would hardly raise feelings of gratitude in a mother at, say, 3 a.m. on a cold winter's morning. On the question of percentage feeding, Dr. Pritchard still strongly supports the laboratory method and does not appear to realise its main defect, what might be called the *toujours perdre* character of the meals. He wisely prefers a system of home modification, depending chiefly on a cream containing 16 per cent. of fat. Of the three methods which he recommends for obtaining such a cream, only one can be relied on, and that is to order a cream of this percentage composition from one of the dairy companies. Such a cream is probably obtained by centrifugalisation, to the disadvantages of which the author is not blind. Although the milk mixtures may vary a little, if made according to the methods recommended, such variations are probably valuable rather than injurious. The chapters on development and the physiology of infancy are accurate and sufficiently full for the purposes for which they have been written. Abstracted in pamphlet form, the information contained in the book would be of greater value and more readily made use of by both mothers and nurses. The title does not seem very appropriate to the subject. One cannot help being struck by the absence of physiology and physiological chemistry in the part of the work concerned with feeding. Perhaps a more accurate title would be "The Feeding and Development of Infants." Certainly the term "physiological feeding" conveys no meaning, and suggests that if the diet proves unsuitable the babe is being "pathologically fed."

EDMUND CAUTLEY.

THE PHYSIOLOGICAL NURSERY CHART. Designed by ERIC PRITCHARD, M.A., M.D.Oxon., M.R.C.P.Lond. Publisher: Henry Kimpton.

THE feeding of infants for whom the breast is not available is frequently of a very unsatisfactory and haphazard nature. It is often left in the hands of a very imperfectly educated nurse without any special training in the subject. We consider that it would be of great advantage to artificially fed infants if the advice of a physician skilled in such matters was periodically sought, and feel sure that a large number of infantile complaints would be arrested if this were done. This chart is drawn up as a kind of compromise

between this ideal and the usual method of feeding; it gives the proportions of milk desirable for the average infant at different ages, with the amounts necessary and the proper times for feeding. The method of preparing and sterilizing the milk is described, and a chart is given in which the weekly weight of a child may be recorded during the first year. On the reverse of the chart are directions for what to do in case of sudden illness, poisoning, etc., which may be useful where a doctor cannot be immediately summoned. There is also a list of nursery aphorisms which are exceedingly sound and of great value if properly attended to in the nursery. We feel sure this chart will be a useful addition to any household, but we would suggest that the name and qualifications of the author should be omitted.

PORTER PARKINSON.

LATERAL CURVATURE OF THE SPINE, STOOPING, ETC. BY NOBLE SMITH
F.R.C.S.ED. Publishers: Smith, Elder and Co. Price 2s. 6d.

THIS small book of 133 pages describes in a clear and simple manner the practical points connected with the management of lateral curvature of the spine. We welcome the recognition by the author of the beneficial effects of properly carried out muscular exercises. It is obvious throughout that his bias is for mechanical support, but this may be due to the fact that Mr. Noble Smith sees chiefly those cases in which exercises have failed. The author again states briefly and well the case for the treatment of spinal curvature by the use of Chance's apparatus, and there is no doubt but that in his hands this treatment is crowned with the best possible results. He also definitely gives his opinion that its use should be combined with carefully devised medical exercises and the administration of a full and nutritious diet. The chapters on "stooping" are in every way excellent, and the causes of that condition and its treatment by exercises are pointed out.

Mr. Noble Smith's enthusiasm for Chance's apparatus leads him to urge its use for the development of the chest in phthisis, a treatment which it seems to us unlikely he will be successful in persuading the profession to adopt.

PERCY LEWIS.

Correspondence.

BOOK REVIEW.

To the Editor of 'THE BRITISH JOURNAL OF CHILDREN'S DISEASES.'

SIR,—In the review of my "Nutrition of the Infant" Dr. Cautley passes some remarks in regard to the book being sent for review to certain journals of the non-medical press. I may say that the course adopted has very good precedent, and it appears to me somewhat unreasonable to contend that writings in regard to "milk-supply," "artificial feeding," "infantile mortality," etc., should be absolutely limited to medical papers. But Dr. Cautley states that the publishers have advertised the book in the non-medical press. I am informed that this is not the case. Would he be good enough to say when and where these advertisements appeared?

I am, Sir, yours faithfully,

RALPH VINCENT.

March, 1904.

To the Editor of THE BRITISH JOURNAL OF CHILDREN'S DISEASES.

SIR,—The verb "to advertise" means "to give notice generally to the public." Surely that is the primary object of a review, and it is quite accurate to regard a review as an advertisement. Perhaps, instead of using the words "advisable to advertise the book, and to get it reviewed in the non-medical press," I ought to have written "advisable to advertise the book by getting it reviewed, etc., etc." On the question of the justification of such a procedure I expressed no comment beyond stating that "In no sense of the word can the book be regarded as a popular one, or as written with a view to impressing the general public." Surely Dr. Vincent cannot wish to controvert that opinion. I should be extremely sorry to do him the least injustice.

I am, Sir, yours faithfully,

EDMUND CAUTLEY.

March, 1904.

MILK DISPENSARIES FOR CHILDREN'S HOSPITALS.

To the Editor of THE BRITISH JOURNAL OF CHILDREN'S DISEASES.

SIR,—I have read with great interest your article advocating the supply of milk to poor children under the supervision of the authorities of the various children's hospitals, and I desire to express my sympathy with your suggestion on this matter. The Corporation of Liverpool have for some time now been supplying sterilised and diluted milk to children in the poorer parts of the town, and they deserve the greatest possible praise for their efforts to prevent the direful results which accrue to infants who are artificially fed in the insanitary surroundings in which they live, and for their recognition of the possible infection of such children with tuberculosis in addition to the dangers arising from the milk poisons and dirty bottles. There is, however, no doubt that the methods which they have employed might be improved upon or supplemented.

At the Health Congress which was held in Liverpool last summer, in speaking on this subject I pointed out that it would be of the greatest advantage if the milk could be dispensed to children under medical advice, because the stereotyped dilutions which are kept in stock for children of varying ages will certainly not agree with every child within the age limits for which they are prepared. Infants have idiosyncrasies, and from practical experience we know only too well that a dilution which has suited one child admirably will disagree entirely with another of the same age, and I am strongly of opinion that the milk should be dispensed under the auspices of a most careful medical supervision. At the depôts the authorities are only likely to hear of those cases which do well, because they will return for fresh supplies, but when the prepared milk disagrees, the children are no doubt taken to the hospitals, or the treatment is discontinued and they are not heard of again at the milk depôts. I should very much like to see a scheme at work which would provide for the feeding of the infants under medical supervision.

I am, Sir, yours faithfully,

CHARLES J. MACALISTER.

Rodney Street, Liverpool. March, 1904.

THE
BRITISH JOURNAL
OF
CHILDREN'S DISEASES.

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No. 5.

Original Articles.

A CASE OF ENDOTHELIOMA OF THE BRAIN, WITH
CHRONIC HYDROCEPHALUS.*

By W. C. CHAFFEY, M.D.Lond.,

Physician to the Royal Alexandra Hospital for Children, Brighton.

IN the 'Reports of The Society for the Study of Disease in Children,' 1902—1903, a short clinical note of this case was given, together with a photograph of the lad during the latter part of his stay in the Children's Hospital, Brighton, where he was for some months under my care.

The following history, obtained from the mother, will be of interest, as it seems to illustrate the fact that serious conditions may sometimes exist within the cranial cavity for many years without giving rise to any definite symptoms of cerebral disease.

E. S—, aged 10 years, had been irritable and sensitive to noises for several years past. At eighteen months of age he frequently had

* Read before The Society for the Study of Disease in Children, January the 15th, 1904.

severe screaming attacks, during which he became rigid. He was always thin. About eighteen months ago he often complained to his mother that he could not see clearly. About fifteen months ago he returned from school complaining that he had been hurt by some boys pushing him against the wall of the school playground. Shortly

FIG. 1.



after this happened he began to refuse his food and say he could not swallow. He did not vomit or complain of pain in the head till February of last year, when the mother brought him to the Children's Hospital. He was admitted and kept under observation, but nothing definitely pointing to cerebral disease could be discovered. He was very taciturn, apathetic, and disinclined to associate with the other patients. His eyelids blinked when he was spoken to. There was no squint or paralysis of any parts, and sensation, hearing, and

smell seemed to be normal. His pupils were somewhat dilated, equal, and reacted normally to light. The knee-jerks were not obtained. Great wasting of all parts of the body was a marked feature, and this increased slowly but surely, so that he became much emaciated and scarcely able to move about the ward. His gait, however, was not peculiar. There was no retraction of the head, which was about normal in size. There was no tache cérébrale, and he complained of no headache at that time. No Babinski sign could be elicited, and there were no contractions of the extremities. He persistently refused all solid food, but would drink about three pints of liquid, chiefly milk, per diem.

At that time, owing to the absence of definite cerebral symptoms, the case was viewed as one of hysteria, probably the result of shock, consequent on the loss of his sister, who had died recently.

As he seemed brighter and was able to walk better, he was allowed to return home. Here he was well looked after in every respect, but two months later, October, 1903, he began to develop bed-sores, had attacks of pain in the head with screaming, almost constant tonic contractures of the extremities, especially on the left side, and passed his urine and faeces involuntarily. His discs at that time showed fairly well-marked optic neuritis. It became apparent that he was suffering from increased intra-cranial pressure, due possibly to some tumour pressing on the iter and so causing hydrocephalus. I thought probably he had a growth in the middle lobe of the cerebellum. The patient gradually became unconscious and died.

The *post-mortem* examination, which I made in conjunction with Dr. Akers, who had charge of the case after leaving the hospital, revealed the following particulars:—*Body generally*: Much emaciated. *Calvarium*: Somewhat more expansive than normal, and the bones rather harder than usual. *Cerebrum*: Convolutions over surfaces of hemispheres somewhat flattened. Chronic thickening and opalescence of pia mater and arachnoid at summit of transverse fissure, obscuring the quadrigeminate bodies and probably constricting the iter. The same condition affected the ependyma lining the iter and ventricles everywhere. The latter were considerably dilated, and contained an excess of nearly clear fluid, no recent lymph, and no meningitis of recent date; and no tubercles were viewed. The corpus callosum was much softened. Closely adjacent to the posterior aspect of the right optic thalamus and easily detached therefrom was a small brain-like mass, nearly spherical, about the size of a small walnut. This on section presented a pinkish-grey striated appearance, resembling that of many forms of glioma.

A microscopic examination of this tumour was made by Dr. Targett, of the Clinical Research Association, who reported as follows:—

“The exact nature of this tumour is doubtful, though it is neither a gumma nor a glioma. It will be seen to consist of small epithelial cells arranged in elongated spaces, which are cut in various planes. These spaces appear to be chinks in an abundant fibrillated stroma, not a truly alveolated structure as in carcinoma. The site of the tumour suggests an origin from the ependyma, and from its structure and probable origin I am disposed to regard it as an endothelioma.”

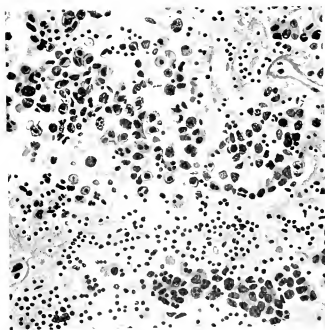


FIG. 2. $\times 200$.

On Dr. Targett's suggestion, I referred the section to Dr. F. W. Mott for confirmation. This I received in due course, so the nature of this rare neoplasm can scarcely be doubted.

Remarks.—I would suggest that the chronic meningitis dated from infancy and was probably tuberculous, though no tuberculous glands were found anywhere. But two small, shotty, yellowish nodules were discovered near the surface of the right lung. It seems to me probable that the meningitis becoming arrested in infancy, the chronic hydrocephalus gradually supervened. I would further suggest that this increased as the result of the blow received in the school playground about five months before he was admitted into hospital, and that the endothelioma, which seemed to be of recent growth, was incited through the same accident.

PSEUDO-BULBAR PARALYSIS DUE TO BILATERAL
TUBERCULOUS TUMOURS.

By LEWIS MARSHALL, M.D.,

Surgeon to the Children's Hospital, Nottingham; and

F. H. JACOB, M.D.Lond., M.R.C.P.,

Assistant Physician, General Hospital, Nottingham.

H. B—, aged 7 years, was admitted under Dr. Marshall's care at the Children's Hospital on October the 2nd, 1903. The history given by the mother was as follows, viz. that the patient was a healthy girl up to seven months before her admission, and attended at school regularly. She was considered by her teachers to be "clever." The first thing amiss noticed was a vacant look, the eyes and mouth being kept open. She also seemed to be "strange," and preferred to be alone. Her appetite was moderately good. A few weeks after this period the right upper limb was kept extended, and the forearm was pronated. Movement of this limb was impaired. No twitchings were noticed. The right leg shortly became affected. She began to walk upon her toes, and her right leg was dragged along.

During a visit to her grandmother after this time, that relative stated to us that the child suffered frequently from severe headache accompanied by occasional attacks of giddiness. These attacks never made her fall down. Very soon after these symptoms were noticed the left upper and lower limbs became affected. Three months after the onset as described her speech failed her. She said "Yea" for "Yes," and her lower jaw began to drop. The power of swallowing either fluids or solids became seriously interfered with. She was unable to use her front teeth for mastication, and food collected at the roof of her mouth. Dribbling of saliva was constant. Up to this time she had received no medical aid, but was now seen by Dr. Robinson, who confirmed the statements made by her relatives as to her condition at that time. By him the patient was passed into the care of Dr. Jacob at the General Hospital, who treated her for a very short period, and who also confirmed the above description, and added that both hands and fingers were in an athetoid position, but there were no athetoid movements. These positions were more marked upon the right side. The right foot was flexed and inverted. When first seen by Dr. Marshall at the Children's Hospital the mother added to her previous statement that in August the patient

was noticed to turn her head suddenly to the left several times a week, and a week before her admission when leaving the table she suddenly "span round to the left—a complete turn," but did not fall because her mother caught her. Since that time she had repeatedly been seen to do this. For a few weeks walking in a straight line had been possible, but she had done so with much difficulty. The mother also stated that headache was not complained of beyond the first month of her illness. The child had no "fit" of any kind. She had been conscious throughout, and was still able to read. There had been no ear discharge or squint. The family history was good, and nothing could be discovered to support a suspicion of syphilis.

When seen by Dr. Marshall in his out-patient room he noted that the patient was assisted in by her mother, and walked with great difficulty. She leant forward on her toes, with the right foot turned inwards, the right upper limb being fully extended, the forearm pronated, and the whole limb held stiffly backwards behind the middle line of the body. The left arm was semi-flexed, with the hand dropping at the wrist. Her expression was vacant, the jaw was dropped, the mouth was open, and saliva flowed from it.

When examined in the ward the next day the out-patient notes were confirmed. Her eyes were widely opened and the pupils dilated. She understood what was said to her although it was difficult sometimes to gain her attention. She was quite unable to speak, but answered at once by moving her left arm when told to do so. She lay in bed with an inclination of her head and eyes towards the left side. A spastic condition of the left arm was present, with strong flexion of the wrist and the thumb turned in. The right arm was extended and pronated. The legs were drawn up, but could be easily extended. The face showed some paralysis of the lower portion on the right side. The tongue could not be protruded beyond the lips, but she was able to touch the roof of the mouth with its tip. She swallowed fluids with difficulty, and like a bird drinking. No nystagmus. No vomiting reported. The pupils were widely dilated—equal in size,—and contracted readily to accommodation, and but slightly to light. Knee-jerks and abdominal reflexes present and active. In the left foot a partial Babinski's sign was present, and in the right foot there was a flexor response in all the toes. Incontinence of urine was noted, the bladder not being full. Urine normal. Examination of the chest and abdomen showed no evidence of any lesion. Full doses of iodide of sodium were ordered.

October the 7th.—The eyes were examined by Mr. Laws, who reported that the left disc was slightly swollen, the right being

normal. Both discs were pale. This examination of the eyes was subsequently confirmed by Dr. Jacob.

October the 11th.—The facial palsy was less marked, and the inclination of the head and eyes to the left side was less pronounced.

October the 16th.—Facial palsy again distinct. Knee-jerks exaggerated. The ward sister said that the child made known her wants by crying and moving her hands.

October the 17th.—Right side of face was flushed.

October the 24th.—Much worse. Pupils widely dilated, and fixed, even to a bright light. Slight ptosis of right lid. Head and eyes turned to the left side and position maintained.

October the 30th.—The temperature reached 103.5° F., pulse-rate 170 to the minute, and this was continued with some slight variations until her death. On this date it was noticed that her pupils reacted

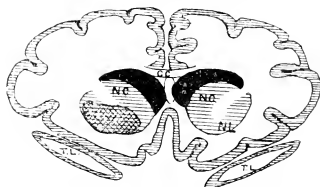


FIG. 1.—Section through anterior part of basal ganglia. Horizontal lines = grey substance; crossed lines = tumour; dark areas = ventricles. NC, Caudate nucleus. NL, Lenticular nucleus. cc, Corpus callosum. TL, Temporal lobe.

to light but not to accommodation. Her arms and wrists were flexed, with thumbs turned inwards and fists clenched. Both arms were placed across the breast. Some retraction of the head was present in the later stages.

December the 3rd.—The post-mortem examination, which was made by Dr. Jacob, was as follows, viz.: Some excess of sub-arachnoid fluid and slight flattening of the convolutions. The *left* lenticular nucleus was occupied by a tumour about the size of a walnut, which encroached upon the internal capsule and optic thalamus (Figs. 1 and 2). The *right* optic thalamus was occupied by a similar tumour, which also encroached upon the internal capsule (Figs. 2 and 3). The right occipital lobe contained another tumour about the size of a filbert. All the other organs were normal.

Microscopic examination showed the tumours to consist of caseating granulomata containing giant-cells and tubercle bacilli.

Summary.—This case we report on account of the rarity of such tumours and the difficulty which exists in diagnosis. We are able to compare this case with one other known to us, and the difference of

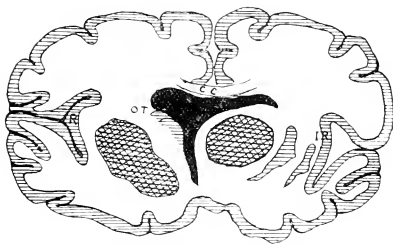


FIG. 2.—Section through middle of basal ganglia. Horizontal lines = grey substance; crossed lines = tumour; dark areas = ventricles. IR. Island of Reil. cc. Corpus callosum. OT. Optic thalamus.

symptoms was most marked in the two cases. In these cases, one of which was syphilitic and the other (that reported) tuberculous, the tumours were bilateral, and evidence of pseudo-bulbar paralysis was

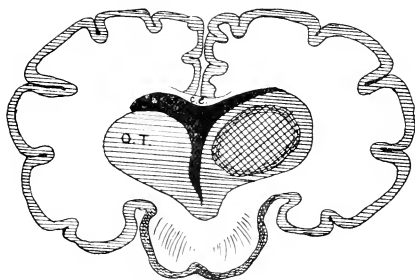


FIG. 3.—Section through posterior part of optic thalami, cut rather obliquely and passing through the crura. Horizontal lines = grey substance; crossed lines = tumour; dark areas = ventricles. cc. Corpus callosum. OT. Optic thalamus.

present in each. In both cases the pathognomonic signs of brain tumour were ill developed, *i.e.* vomiting, headache, and optic neuritis. In one case, that of the syphilitic infant of a year old, nystagmus was well

marked. The ophthalmic condition in this child was not noted beyond the statement that the child was blind. In the case we now report the absence of optic neuritis was undoubted, if we except the slight fullness of the right disc. It is noteworthy that in both cases the position of the arms was exactly similar, and the facial palsy in each was as described in these notes. Retraction of the head also existed in both cases during some period of the illness. The early complete loss of speech in the elder child was striking, and in the younger child this symptom was of course absent. This loss of speech appears to us to be due rather to loss of power in the tongue and lips and, therefore, may be described as anarthria and not true aphasia. The athetoid movements were noticed early, and were followed quickly by the athetoid position. In the baby only was the last-named position noted. A striking fact in our case was the complete absence of any other tuberculous lesion.

A CASE OF GLIOMA OF THE PONS.

By G. A. SUTHERLAND, M.D., F.R.C.P.,

Physician to Paddington Green Children's Hospital; and

EARDLEY HOLLAND, M.R.C.S., L.R.C.P.,

House Physician to Paddington Green Children's Hospital.

WILLIE C—, aged $6\frac{1}{2}$ years, was admitted into Paddington Green Children's Hospital, on January the 8th, 1904. He had enjoyed good health up to six weeks previously, when he received a blow from a brick on the back of his head. There was no apparent bruise or bump or any definite symptom until three days later, when he complained of headache referred to the site of injury. The headache persisted, and three weeks later the right eye was noticed to be squinting. Other symptoms followed in rapid succession, namely, squinting of the left eye, unsteadiness in walking, indistinct and slow speech, dribbling of saliva from the mouth, immobility of the right side of the face, and occasionally difficulty in swallowing. There was nothing of importance as regards the patient's previous health, or in the family history.

There was definite paralysis of both sixth and both seventh nerves. The eyes could not be tightly closed, and the whole face was

motionless and masklike. Saliva was constantly dribbling from the angles of the mouth. These points are well shown in Fig. 1. The paralysis of the right side of the face and of the right external rectus muscle was complete, while a slight degree of movement still existed on the left side, this affection having been of later development than the former. The tongue was not affected, the soft palate was paretic and anæsthetic, and the voice was nasal in character; speech was delayed and deliberate. The head dropped forward as if from weakness of the posterior cervical muscles. The gait was ataxic and feeble; he showed a tendency to fall down, and was unable to stand with his eyes closed. The knee-jerks were exaggerated on both



Fig. 1.—The expressionless face from paralysis of the external recti and facial muscles on both sides.

sides, the plantar reflexes were of the extensor type, and ankle-clonus was not elicited. The boy's facial appearance suggested mental vacuity, but although dull and languid there was no evident defect of intelligence. He did not complain of any pain, but when questioned on the subject he said his head pained him, and located the discomfort in the posterior part of the right side. Examination of the retinae and of the ears showed no objective signs of disease. He was able to swallow well and had no vomiting.

The condition during the remaining six weeks of his life may be summed up as follows: A week after admission he had two severe attacks of cardiac syncope, from which he rallied under stimulation. This was accompanied by great prostration, but after some days he rallied and seemed to recover more muscular power generally, and

more power in the facial muscles, than he had on admission. This improvement was only temporary, and he gradually lapsed into a more torpid condition, was unable to sit up in bed, or to swallow without effort, and lost all control of the sphincters. The day before his death attacks of respiratory failure began, for the relief of which artificial respiration had to be adopted, but on February the 18th cardiac failure also supervened and he sank rapidly. The

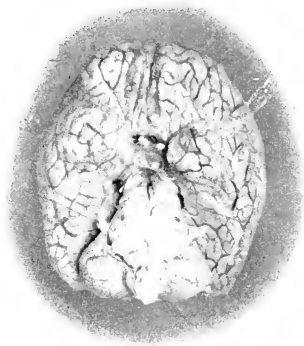


FIG. 2.—The under surface of the brain with pontine new growth.

temperature had been for the most part subnormal, and there had been no attacks of pyrexia.

At the necropsy on the day after death the convolutions of the brain were found to be markedly flattened. There was no excess of fluid in the subdural space, and the cerebral veins were not congested. The ventral aspect of the pons presented the appearance of a lobulated mass, and was considerably enlarged (Fig. 2). The colour was paler than normal and the consistency varied, being in some parts soft and jelly-like and in others harder than brain tissue. The mass extended forwards to the anterior limit of the pons and slightly on to the left crus cerebri, where it was marked by several small lobulations. The third and fourth nerves were not involved.

Laterally it extended for a considerable distance on each side, the growth apparently terminating at the level of the fifth nerves, which were not involved. The cerebellum was not invaded. Posteriorly the limits varied; on the right side the tumour extended well on to the surface of the medulla, while on the left side the medulla was quite free from growth. The eighth nerves were not involved. The superficial origins of the seventh nerves were surrounded by tumour substance, whilst the sixth nerves were completely embedded. The right sixth nerve could not be found, and on the left side the nerve was seen in a groove between two lobules of the tumour. The origins of the ninth, tenth, eleventh, and twelfth nerves were not implicated on either side. The basilar artery was completely surrounded by the tumour. The lateral and third ventricles were greatly distended with fluid. The floor of the fourth ventricle was markedly flattened, due evidently to the pressure of the tumour upwards against the middle lobe of the cerebellum. The growth was an infiltrating one. No capsule and no adhesions were present. On naked eye section the limits of infiltration could not be determined, owing to the similarity in colour between the tumour and the normal tissue of the pons. On microscopic section the tumour was seen to be a glioma, which had infiltrated the substance of the pons, the right side being more invaded than the left. Some of the pyramidal fibres were completely surrounded by infiltrations of the growth.

There was a history of injury in this case, as will usually be elicited in cases of cerebral lesions, but probably the connection between it and the development of symptoms was purely accidental. The symptoms pointed clearly to a pontine lesion, and the only question was as to the nature of the lesion. The absence of the cardinal signs of a cerebral tumour, namely, optic neuritis, vomiting, and marked headache, was suggestive of an infiltrating growth rather than an isolated mass causing vascular disturbance. Treatment by mercurial inunction, and iodide of potassium internally was adopted, but of course without any permanent benefit. The whole duration of the illness from the onset of the first symptom was three months.

We are indebted to Dr. Sidney Gilford for the photographs from which the illustrations are taken.

THE RELATION OF CERTAIN EXTRA- AND INTRA-CRANIAL HÆMORRHAGES IN THE NEWBORN.*

By J. HOWELL EVANS, M.A., M.B., M.Ch.Oxon., F.R.C.S.Eng.,

Late Senior Demonstrator of Anatomy at St. George's Hospital; Honorary Surgeon to the Invalid Children's Aid Association, etc., etc.

IN connection with extra-cranial hæmorrhages—cephalhæmatomata externa—which are occasionally met with, and in connection with intra-cranial hæmorrhages, namely, those extra-dural or cepalhæmatomata interna which we rarely see, and the meningeal or cortical hæmorrhages the destructive influences of which are so frequently encountered, a common explanation has not, as far as I am aware, been advanced.

Such hæmorrhages occur irrespective of many factors which have long been considered as the causes of their production; they arise irrespective of the lie and position of the fœtus in utero, without any relation to a breech or vertex presentation, and in labours unaided by forceps, as well as in labours in which such mechanical assistance is employed. Lastly, even a difficult adaptation of the fœtal head to the maternal pelvis is oftentimes absent.

The injury is done during the neonatal transit, but the blood is effused during the reactionary period which follows, inasmuch as when the extra-uterine life supervenes upon the antenatal, very profound and important changes follow in the circulatory system, in the blood-pressure, and even in the blood itself: dependent upon such changes these hæmorrhages appear.

The fœtal head is relatively large, and in its adaptation to the maternal pelvis its contour is markedly altered. This moulding of the head is due to the overlapping of the bones at the sutures; one parietal overrides the other at the sagittal suture, while at the coronal and lambdoid sutures both parietal bones override the frontal and occipital bones.

If this overlapping is excessive, or if, owing to variations from the normal ossification of the bones of the cranial vault, the necessary moulding occurs more particularly at certain accessory sutures, then the process becomes pathological.

* Paper read before The Society for the Study of Disease in Children, January the 15th, 1904.

It is in relation to these latter (accessory sutures) that I desire to elucidate the production of these hæmorrhages (Figs. 1 and 2).

I have, therefore, sought some common factor which may act whether the moulding of the head take place from the superior cephalic planes or from the inferior cephalic planes; and in the limited space at my disposal I purpose only to consider those hæmorrhages connected with the parietal bone.

The parietal bone is generally developed from one centre, whence radiating osteogenetic fibres pass towards the borders of the bone. If, however, the parietal bone become developed from two ossific

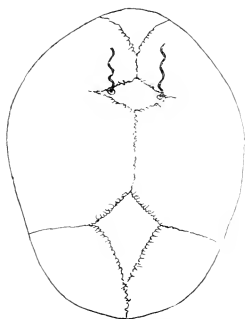


FIG. 1.—Sagittal fontanelle (after Laplace).



FIG. 2.—Sagittal fontanelle.

centres, then from these two centres the radiating osteogenetic fibres pass to the borders of the bone, and at the points furthest from the centres tend to leave gaps. Such a gap exists for a long time in the region of the parietal fontanelle, forming a membranous space. This usually becomes closed about the fourth month of intra-uterine life. It may, however, remain until birth, embarrassing the accoucheur, and a trace of it may even persist throughout life, as the parietal foramen, serving for the transmission of certain vessels (Figs. 3 and 4).

The presence of parietal foramina is an anatomical fact long known; the theory that such foramina are connected with the blood-supply of the pineal eye has been on all sides accepted; but the importance of these foramina and their transmitted vessels in the production of these various pathological hæmorrhages has scarcely been entertained.

Transmitted through the parietal foramen, intra-parietal suture, or sagittal fontanelle, as the condition may be, are blood-vessels—an artery and a vein—which form one of those important channels of

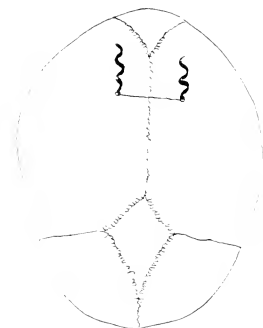


FIG. 3.—Intra-parietal suture.

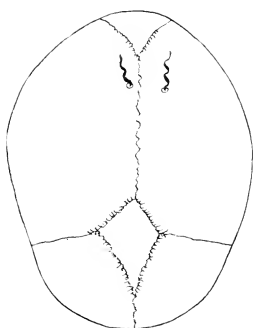


FIG. 4.—Parietal foramina.

vascular communication between the structures which lie without and those which lie within the skull.

In a foetal skull of normal ossification subjected to normal and even to excessive moulding these vessels are safe from injury, but

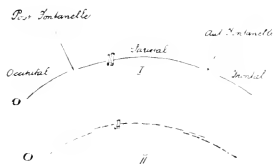


FIG. 5.

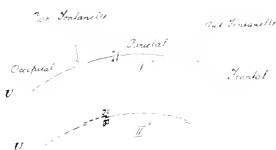


FIG. 6.

Diagram illustrating the moulding of the vault of the fetal skull in the antero-posterior plane during its transit through the birth canal. O, Ordinary, vessels escape. U, Unusual, vessels injured. I, I'. Before moulding. II, II'. During moulding.

with accessory sutures and irregular moulding they are liable to mechanical injury. This injury may lead to—Rupture of the artery (a) on outer side of skull; (b) on inner side of skull; tearing of the

vein ; laceration of both vessels ; thrombosis of these vessels (Figs. 5 and 6).

Moreover, such an injury may occur on both sides, but is more liable to be found in connection with the parietal bone which lies outermost. To these forms of injury all vertical hæmorrhages of the reactionary period of the new-born can be traced.

I have been able to produce the external cephalhæmatomata artificially by mechanical pressure, also by lacerating or dividing the vessels with a tenotome, and to demonstrate the same by rhythmical injection of the ruptured vessels with a coloured preparation.

COMMON FACIAL LESIONS AND INFECTION.

By FRANK H. BARENDT, M.D.Lond., F.R.C.S.,

Senior Physician, St. George's Hospital for Diseases of the Skin ; Consulting Dermatologist, Royal Southern Hospital, Liverpool.

ERUPTIONS occurring on the face in children are among the most frequent, not only in hospital, but also in private practice, for which medical advice is sought. The fact that the face, being uncovered, is constantly exposed to atmospheric changes and all kinds of injury, does not completely account for this frequency. There is another factor which is inseparably associated with the tender age of the patients and is never absent, though its presence is more often graphically realised in the children of the poor. I refer to the action of secretions from the mouth, nose, and eyes on the skin in their immediate neighbourhood. These secretions may be normal, and yet if allowed to remain on the skin produce by their ever-continuous renewal, typical lesions. These are often called "scurvy" by the mother—but of course they have nothing whatever to do with scorbutus—and are frequently regarded by her as an indication of the child's general health being below normal.

The type of the eruptive patch is a squamous macule. It is circular, varying in size, red by contrast to the surrounding healthy integument, and covered with fine furfuraceous scales. To the touch the surface is rough, but the patch is not raised above the level of the healthy skin, and there is no induration.

With a Coddington lens, the epidermis is seen to be chipped and fissured in every direction. Some of the fissures extend to the

stratum papillare of the derma, showing at the bottom little specks of blood-clot. Others extend only to the *rete mucosum* of the epidermis, revealing at times a glistening discharge, which congeals here and there on the surface of the patch and forms a sticky honey wax-like substance (*meliceris*). This under a higher power is seen to consist of distorted swollen epidermal cells derived from the deeper succulent layers of the epidermis, and frequently wool-hairs. Under glass pressure, the redness of the patch is obliterated, and the fissures become more noticeable to the naked eye. In anæmic children, the circumscribed dull sand-papery appearance arrests attention.

The distribution of these patches is characteristic; in fact, the site accounts in a great measure for their presence. The favourite areas are the angles of the mouth, the mental sulcus, the submental region, the probabium, the promontory of the cheeks, and the external commissure of the eyelids. They are also met with in the sub-maxillary groove, caused by a too tight hat-elastic or friction of the bonnet-strings.

The exciting cause of this type-lesion is the natural discharge from the neighbouring apertures. This action on the epidermis is often aggravated by the over-use of soap and water and mechanical friction in drying the patient's face.

In infants drivelling is usual, the mental sulcus is continuously wetted, and the bib acts like a wet compress to the submental region. The movements of the head increase the extent of the macerated area. Indeed, even in well-tended children it is remarkable how frequently submental roughness is present, readily enough detected by the finger. Fortunately as the child grows and the neck becomes more obvious, this submental patch disappears as the bib is no longer now in continuous contact.

The use of the dummy teat—speciously termed a “comforter”—often starts the probabial lesion; such pacificators should be strenuously discountenanced. During the period of dentition the angles of the mouth are affected, and that angle of the side on which the child chiefly lies shows a more extensive patch than the other. The pillow or head-wrap becomes wet with discharge and the impinging hair of the wool upon the fissured epidermis irritates the patch still more. Circumoral patches are often seen in children when they begin to feed themselves, and eat fruit and sweets. Particles of food are left to dry on the epidermis and so irritate it.

Nasal discharge due to coryza constantly produces the lesion extending from the probabium to the columella and alæ nasi. In older

children the inspissated mucus gives rise to nose-picking, and so aggravates the nature of the eruption, which may become distinctly rimose.

Tears flowing over a skin temporarily actively congested, if allowed to evaporate, irritate the integument from the salt they contain. At the promontory of the cheek they remain stationary, and it is here where the epidermis displays the patch. From the aspect of the cheeks the amount of tear shedding a child does can be gauged, and an index to the temperament and general health is thus obtained. In epiphora in adults the roughness of the skin is frequently manifest; in children because crying is supposed by many to be inseparable from their childhood, similar skin irritation is often overlooked, or if noticed, not referred to the cause. The outer canthus of the eyelids becomes tear-sodden when the child is in the recumbent posture, and one side shows generally the patch more developed than the other.

These facial patches form a suitable ground for, nay invite, the insemination of pathogenic micro-organisms, which is furthermore facilitated by misguided zeal in the too frequent use of soap and by inappropriate external medication (*e. g.* sulphur ointment). Dissemination is produced by the roaming rubbing fist of the little patient, and we may get the clinical picture of *impetigo*, so frequent in hospital practice, or a mask of *eczema* in various stages of evolution and involution. As a rule the pustules of impetigo are thickest and best developed in the sites of these patches, and eczema faciei generally has had its origin in them. Again, the tubercle bacillus may find a suitable breeding ground in the succulent fissures of these lesions.

It is therefore of prime importance that their occurrence should be prevented by rendering inoperative the causes, and combating as far as possible the conditions favourable to their inception. It is self-evident that the epidermis must be kept intact by directing *explicitly* the attention of the mother to the obvious causes, and the preventive measures that these imply. With the object of obtaining a sound epidermis in these sites, the following dusting powder may be used :

℞ Talci Veneti	} ãã partes æquales.
Zinci oxidi	
Amyli purissimi	
Fiat Pulvis Aspersorius.*	

* These may be skin-tinted with Armenian bole or Tinctura cocci, and perfumed with Oleum geranii, if desirable.

A powder-puff made of cotton wool, and therefore renewable as often as desirable, is used to dust copiously the powder over these regions. In the bib area, a pad of the same material well sprinkled with the powder is of service, and the pillow at night may be well dusted and so protect the region.

If the dusting powder fail to afford efficient protection, the following paste may be used :

R Zinci oxidi	} ãã partes æquales.
Amyli purissimi	
Adipis lænæ hydrosi	
Paraffini mollis	
Fiat Pasta.*	

It should be spread butter-fashion, on the patch and left *in situ* for twenty-four hours, and it should effectually cover and overlap the margins, so that there be no doubt about its protective capacity. If the use of soap and water interfere with *restitutio ad integrum*, these must be interdicted, and olive oil B.P. used in their place. It may be conveniently applied by means of a broad camel's-hair brush, and the region gently dried with a soft piece of linen. Sapo durus B.P. is the most suitable soap for, and least harmful to, the skin when the use of soap and water is resumed. Even then a little olive oil may be gently rubbed at night into the skin, especially if there be any sign of redness or roughness.

If the general health require attention, cod-liver oil warmed to facilitate deglutition, together with the syrup of the iodide of iron, are admirable remedies.

In conclusion let me repeat that a sound epidermis is Nature's surest defence against bacterial invasion. Therefore it behoves us not to overlook such lesions, trivial though they be, ever bearing in mind the danger to which the little patient is exposed. I need only mention how often lupus attacks the face, how insidious is its onset, how direful its ravages, how rebellious it is to treatment, in order to accentuate the supreme importance of prevention in cutaneous diseases.

* These may be skin-tinted with Armenian bole or Tinctura cocci, and perfumed with Oleum geranii, if desirable.

The Society for the Study of Disease in Children.

A MEETING of the Society was held on Friday, March the 18th, at No. 11, Chandos Street, W., Dr. PERCY LEWIS (Folkestone) in the chair.

A Case of Enlarged Liver and Spleen in a girl of thirteen years was shown by Mr. HAROLD BURROWS. Six months previously laparotomy had been performed for supposed hydatid disease of the liver, but the liver was found to be uniformly enlarged and smooth. There was no history of syphilis, but as there were the remains of old retino-choroiditis in both eyes, a diagnosis of syphilis had been made.

Dr. GUTHRIE agreed that the case was probably syphilitic, and asked if there was an excess of red blood-cells, which had been found in some cases of hepato-splenomegaly.

Dr. PORTER PARKINSON recalled a case published by Sir Thomas Barlow in which hepato-splenomegaly had persisted from infancy to adult life, accompanied by recurrent attacks of abdominal pain and jaundice.

A Case of Mitral Disease, with Recurrent Attacks of Dilatation of the Heart in a girl of twelve years was shown by Dr. C. W. CHAPMAN. These had at first yielded to the ordinary remedies, but later the dilatation and failure of compensation were not relieved until the administration of adrenalin solution in 5-drop doses every four hours. This was followed by steady improvement.

In reply to questions by Dr. Fortescue-Brickdale (Bristol), Dr. CHAPMAN said that the symptoms, amongst which was orthopnoea, had been unrelieved by ordinary measures, and the child had derived no benefit until the use of the adrenalin solution.

A Case of Hæmatoma of the Parietal Bone in an infant of eight weeks was shown by Mr. KEOGH MURPHY. At the age of six weeks the swelling was still soft and fluctuating, but a fortnight later it was rather larger, and hard and bony throughout.

Dr. GEORGE CARPENTER said that in a similar case which felt exactly like bone and suggested an osteophyte, the X rays had shown that the swelling was not really composed of bony tissue, and asked whether Mr. Murphy had made this test.

Mr. HOWELL EVANS thought that the tumour was bony, and that the development of such a condition was a strong argument in favour of early surgical interference in all cephal-hæmatomata.

Mr. MILNER BURGESS (Harlesden) said that in an experience of twenty years he had seen many cephal-hæmatomata, and had never seen any bad results from leaving them alone.

A Case of Double Pes Cavus in a boy of four years was also shown by Mr. MURPHY. Two years previously his walking had become awkward, and had steadily become worse. There was no history of acute illness as an exciting cause. The left lower extremity showed a condition of equino-varus,

with contraction of the plantar fascia and tendo Achillis. The foot could only be put into a good position with difficulty. The right lower extremity showed a condition of talipes calcaneus and valgus, with great laxity of the ligaments. The tendo Achillis and the tendon of the tibialis posticus could not be felt, and there was great wasting of the gastrocnemius muscle.

MR. DOUGLAS DREW thought that the condition was due to anterior poliomyelitis, and suggested that a good result might be brought about by transplanting the peroneus longus of the right leg on to the tendo Achillis.

DR. GUTHRIE thought that careful electrical reactions should be taken so as to settle the question as to whether the disease was anterior poliomyelitis, or a congenital want of development, or some obscure form of myopathy.

A Boy who had been subject to Peculiar Attacks for two years, in which he would suddenly run to his mother, exclaiming "Horrid smell," was shown by DR. LEONARD GUTHRIE. His age was eleven years. He would appear much agitated and distressed for a few moments, sometimes spitting and grimacing, and going through the action of trying to pull something out of his mouth. He would then behave "as if he were silly," running to persons in the room, and trying to embrace them. After five or ten minutes of this behaviour he would become quiet, turn pale, shiver as if cold, seem exhausted, and lie down to sleep. Dr. Guthrie regarded the case as one of automatism with olfactory and gustatory auræ, a condition allied to epilepsy or megrim. Under treatment with bromide of potassium in 8-grain doses thrice daily the attacks diminished rapidly in frequency and severity.

THE CHAIRMAN (DR. PERCY LEWIS, Folkestone) commented on the large pupils and a tendency to exophthalmos in the patient.

DR. A. E. JONES said that visual auræ were of two kinds, (1) of persons, which were usually unpleasant, and (2) of landscapes, which were usually pleasant.

A Case of Multiple Congenital Deformities in a girl of five years was shown by DR. EDMUND CAUTLEY. She was one of twelve children, all the others being healthy and well formed. She was very small and intellectually deficient. Walking or standing had not yet been accomplished, although there was no indication of a muscular or a nervous lesion. The eyes were marked by notching of the upper lids, dermoid cysts on the conjunctivæ, coloboma of the iris and choroid, and choroidal atrophy. There were accessory auricles, and macrostoma on the right side.

MR. LOCKHART MUMMERY said a most interesting point was the association of auricular appendages with the fissure of the mouth, because those cases seemed to carry out the theory that the auricular appendages were developed around the outer end of a partly persistent inter-maxillary cleft, the anterior part of which was represented by the fissure of the mouth.

MR. HOWELL EVANS pointed out that the notch in the upper eyelids occurred at a point where there was a division between the nerve supply of the outer two-thirds and the inner third, a situation often occupied by birth marks, moles, etc.

A Case of Chronic Interstitial Nephritis in a boy of eight years was shown by DR. G. A. SUTHERLAND. There was marked cardiac hypertrophy and thickening of the radial arteries. The urine was of low specific gravity

and contained occasionally a trace of albumen and granular casts. There were no retinal changes. Dr. Sutherland commented on the syphilitic origin of these cases, although no history of that disease was present in the present instance. The prognosis was worse than in adult life, for the disease ran a more rapid course in children.

Mr. THOMSON WALKER thought that syphilis was a frequent cause of such cases, and asked whether there was any possible septic focus in the present case which might have started interstitial nephritis.

A Specimen of Early Parrot's Nodes from a child of two years was shown by Dr. E. P. BAUMANN. The nodes were in an early stage, being small, sharply limited, and still vascular. It was uncommon to find them developing at such a late age. The patient had well marked signs of syphilis.

Dr. GEORGE CARPENTER said that he regarded Parrot's nodes as definite evidence of syphilis, and that the spleen would be found to be enlarged in 50 per cent. or more of such cases. It was a syphilitic manifestation which was prone to arise in a rickety subject.

An Embryonic Cyst of the Mesentery from an infant eight months old was also shown by Dr. BAUMANN. The patient developed symptoms of acute intestinal obstruction, intussusception was diagnosed, and on operation a cyst was found between the layers of the mesentery, kinking the lower end of the jejunum. The cyst was the size of a pigeon's egg, and contained a quantity of viscid fluid in which cholesterol crystals were present. Such cysts were formerly known as chylous cysts of the mesentery, but were now regarded as embryonic in character.

Dr. GEORGE CARPENTER had seen a mesenteric cyst in an infant which came under clinical observation as an abdominal tumour. In that case the cyst was associated with enlarged glands, and the possibility of a tuberculous abscess was entertained on that account, but at the operation it was found to be a mesenteric cyst accompanied by enlarged glands which were non-tuberculous.

The following papers were read :

1. Congenital word-blindness in children, by Mr. Sidney Stephenson, and
2. Notes on a case of nephro-lithotomy, by Dr. Porter Parkinson and Mr. Douglas Drew.

Editorials.

MUNICIPAL MILK SUPPLIES.

THE desire shown by certain municipalities to improve the health and diminish the mortality of young infants is one which will be cordially encouraged by all members of the medical profession. It

is in no carping spirit that we wish to criticise, not the aims of these authorities, but the means which they are adopting for the purpose. The method which has usually commended itself to the town authorities and their health officers is to supply, at a moderate cost, cows' milk which has been pasteurized, or sterilized, or humanized; and the main object is clearly to prevent the ingestion of active pathogenic organisms, and more especially of the tubercle bacillus.

It will be admitted that before a public authority takes special preventive measures as regards infective disease it ought to be quite sure of the facts on which it proposes to act. Has it, then, been clearly proved that tuberculosis is largely conveyed to infants through cows' milk containing tubercle bacilli? Certain statements on this subject emanated from the Local Government Board a few years ago, which led to the belief that there had been a definite increase in the number of deaths from *tabes mesenterica* in infants under two years of age, and that this increase was due to the consumption of tuberculous milk. It was soon pointed out that the statistics on which these statements were based were the death certificates of the country generally, and that in the majority of these *tabes mesenterica* was assigned as the cause of death without any post-mortem examination having been made. In such a disease as *tabes mesenterica* the absence of a necropsy must always leave the diagnosis uncertain, and statistics based on these returns are of little value. When the subject was further investigated at the children's hospitals it was found by the post-mortem records that *tabes mesenterica* was a comparatively rare disease in infants, and that hospital experience failed to lend any support to the Registrar-General's statistics. The statements, therefore, that *tabes mesenterica* is increasing in the country, and that the cause of the increase is infection from tuberculous milk, must be regarded, for the present at least, as not proved.

If municipal authorities undertake to supply milk to the public, the public will naturally expect and demand that this milk shall be a proper food for infants. Can milk which has been sterilized or humanized be so described? Pure fresh cows' milk, unaltered or boiled on delivery, has stood the test of experience, but the various modifications by sterilizing, humanizing, etc., are still on trial, and in

many cases have led to scurvy, anaemia, or malnutrition. They are means employed by medical men for special reasons and for a limited period ; but they produce such changes in the milk that their employment on a large scale and apart from medical advice is not justifiable. We do not know if a death from municipal milk has yet been reported, which might prove awkward for the municipality supplying it, but undoubtedly physicians have traced disease and deterioration in health to this method of feeding.

We have the greatest respect for the medical officers of health in this country when carrying out their own work, but the feeding of infants is rather outside their sphere, and is a branch of medicine in which few of them have had any special training or experience. Their statistical results as to feeding by municipal milk form most interesting reading, but we are not prepared to accept them as finally settling problems which have exercised, and are still exercising, all the skill of specialists in diseases of children. The effects of a dietary on a large number of infants can only be correctly estimated by those who have the children directly under their own observation. Statistics as to the death-rates of infants fed on municipal milk and others not so fed are practically worthless, because so many unknown factors come in.

We do not wish to imply that municipal authorities cannot do a great deal to improve the milk supply and the health of infants. If the water supply of a town were found to be contaminated by organic matter, we should not expect the authorities to establish a large sterilizing centre, but to find out and remove the source of contamination. Let the municipal authorities look after the milk at the sources of contamination, namely, at the farm, in transit, and in the shops where it is sold. If proper measures were taken to secure the delivery of a pure milk to the consumer, there would be no necessity for the establishment of a municipal milk depot. We admit that there are difficulties in the way, but as public interest has now been aroused on the subject, we believe that public support would be forthcoming. Each town ought to have authority to license every farmer who supplies milk to that town, and to refuse admission of the milk if the sanitary condition of the farm and the purity of the milk are not approved by the medical officer of health.

Similarly, each shop at which milk is retailed ought to be licensed and supervised by the health authorities. Probably the consent of Parliament would be necessary for the carrying out of these more stringent measures, but we believe that the time is now ripe for such action, and if the importance of the subject as regards infant life and infant health were properly represented, that such consent would not be withheld.

THE SOCIOLOGICAL SOCIETY.

It is with a feeling of great gratification that we observe the formation of a Sociological Society in London. Ever since the days of the now defunct National Association for the Promotion of Social Science it has been a source of reproach to England that she possessed no journal or society concerned with this most important study. The latter want has now been remedied and, as soon as financial considerations permit, the former will also be. Such names as Prof. Geddes, Mr. Oscar Browning, Mr. Benjamin Kidd, Dr. Bridges, Dr. A. C. Haddon, and Mr. H. G. Wells, serve as a guarantee that the matter has fallen into the right hands. The first meeting of the Society was held on April the 18th, which was by a curious coincidence only five days before the publication of the autobiography of the greatest English sociologist, Herbert Spencer. Mr. James Bryce was in the chair, and Prof. Westermarek delivered an interesting lecture on "Women in Early Civilisation," on which subject he is perhaps the greatest living authority.

To those of us who are interested in the welfare of children—and which of us is not?—the existence of this Society will be especially welcome. Problems of heredity, eugenics, hygiene of infancy, of the care and training of children, are amongst the most urgent with which the Society will have to grapple. For these and other reasons we wish the Sociological Society all success and a fruitful career.

Excerpta Puerilia.

Child-slaves.—Mr. Robert Sherrard has been contributing to the 'London Magazine' some articles on the "Child-slaves of Britain." It is said that "for sheer misery of laborious and under-paid labour in which children are forced to participate as long as their little fingers can move and their eyes keep open, it is in the kitchens of the squalid homes in the courts and closes that we must look." And even our Government apparently, thoughtlessly no doubt, is guilty of encouraging the sweating system. Children are said to aid in the sewing the chains on to leather for soldiers' chin-straps, and the Government is very particular. Any strap in which the seventy-two links are not sewn on in the best style is pitilessly refused. 1s. 8d. has been said to have been earned by two people in two days, and working from 6 a.m. until 11 p.m. At wrapping up hair-pins it is said as much as 2½d. can be earned by four children in two days. For this sum 1,000 packages have to be made up. One penny a day can be earned by a child in bending the tin clasp round safety-pins. More, however, may be earned in fastening safety-pins upon cards. It is said that after practice a child can earn ½d. an hour. Three halfpence can also be earned for varnishing 144 penholders. Each penholder has to be rubbed with sandpaper and given five coats of varnish. It is said that the comfort of a slum kitchen can be imagined when three pennyworth of penholders, 288 in number, are lying about in process of drying. These facts were gathered from the city of Birmingham, but we know that Birmingham is by no means unique amongst provincial cities in its pathos of life amongst the very poor. We talk of the blessings of civilisation, but although with savage races we believe there is sometimes scarcity of food, the dreadful daily round of the struggle for existence is unknown amongst them. In primitive conditions of life when one suffers lack of food all suffer, because the absence of the necessities of life is due to natural causes such as drought or the visitation of some pest. Amongst the civilised, however, there is food on every hand, but the struggle in the case of many is how to honestly obtain any of it.

State children.—Apparently about 60,000 children are wholly dependent on the rates. These are variously housed, a large per-

centage, 22,000, still remain within the workhouse itself, but others are boarded out in barrack schools, or in village communities. The village community system is, as might be expected, the most expensive, the cost of maintaining a child averaging over £33 annually, while the cost of boarding out in a family is about £13 a year.

The children's village community appears to be an ideal system for the training of children dependent for their maintenance upon others than their own relations. The village has its school, chapel, workshops, library, gymnasium, swimming baths, and playing fields, the children living in groups in various cottages under foster-parents. The Birmingham Union established the first of these villages in 1880, and Kensington and Shoreditch soon followed. Cardiff started a somewhat different system known as the "scattered home" system, the idea being to entirely dissociate the child from the taint and prejudice of pauperism. Under this system small residential houses are acquired in various parts of the town in which ten to twelve children, including boys and girls, live under a foster-mother, and attend the board school in the neighbourhood. From the sentimental standpoint perhaps the "scattered home" system could hardly be improved upon, but apparently the training as trade craftsmen the boys receive in the "village" communities has, according to the reports, placed the boys that have left the villages in a position that it is said gives little prospect of their drifting back on the rates for support unto the third or fourth generation. This is rather a bold prophecy, but there can be little doubt that boys who have been well fitted by training and education to fight the battle of life, are not likely to produce children who will be thriftless or incapable.

The criminal instinct.—Sir Robert Anderson, formerly head of the detective department at Scotland Yard, has an article in the 'Daily Chronicle' upon the criminal instinct. Amongst other remarks he makes the following:—"Human nature being what it is, animal spirits and what is called 'force of character,' unless brought under control by discipline or training of some sort, will inevitably lead to mischief. And in certain conditions and circumstances mischief is apt to bring people within the meshes of criminal law." The acceptance of the foregoing statements will suggest the reflection that if by the "criminal instinct" he meant the tendencies here specified, some of us would resent the imputation of being destitute of the criminal instinct! After, however, speaking of the "criminal instinct" of the Lombroso type, he says:—"Even the brute will yield to the influence of environment and discipline. It cannot be

raised to a higher plane of being, but it can be brought to acquire habits which normally belong to a higher plane." "A well-trained dog is a safe companion for other domestic animals that he would naturally attack, and may even be trusted in the larder; and a man of low type may be a harmless and useful member of the community." Such a being, however, Sir Robert states, is very different from a lunatic. He says: "A lunatic can no more be trusted than a tiger." Amongst professional criminals, he says, are "shrewd men, who dislike the drudgery of work and love the excitement of adventure." There is also the question of nationality to be considered. The Irish are said to be most law-abiding if treated with "firmness and fairness," but "no people get out of hand more quickly if left without proper control." If lunacy be excluded, Sir Robert considers that "congenital" criminal instincts are so rare that, "in England at least," they "may be ignored." That is to say, he considers that a congenital "propensity to commit criminal acts which cannot be checked by environment or controlled by discipline" is very rare. "The offspring of criminal and vicious parents are sometimes more difficult to train and control than children of happier birth," but "generally speaking the difference between them is only one of degree."

The Care of the Feeble-Minded.—A conference of the After-care Committees of Birmingham, Leicester, and Nottingham was held at Birmingham on Thursday, March 24th, in order to discuss questions and difficulties with regard to the treatment of the feeble-minded, the investigations of the above Committees having convinced them that permanent care of the feeble-minded in residential homes is the only satisfactory and adequate method of dealing with them. One of the chief objects of the conference was to define the lines on which it is advisable to work, in order that local authorities throughout England should, in applying to Government for extension of powers, adopt proposals substantially similar. The following papers were read:—(1) "Special Classes and Boarding Schools for the Mentally Defective," by Miss Dendy (Secretary of the Lancashire and Cheshire Society for the Permanent Care of the Feeble-Minded). (2) "The Responsibility of the State towards the Feeble-Minded," by W. H. Dickinson, Esq. (Chairman of the National Association for Promoting the Welfare of the Feeble-Minded). (3) "Further Accommodation for Non-Panper Imbeciles," by Mrs. Hume C. Pinsent (Chairman of the Birmingham Special Schools Sub-Committee). In conclusion the following RESO-

LUTIONS were adopted unanimously:—(1) “That in the opinion of this Conference it is necessary that the provisions of the Elementary Education (Defective and Epileptic Children) Act, 1899, should be made *compulsory*.” (2) “That an inquiry should be held to consider whether, and if so what, alteration of the law is necessary, so that *harmless pauper and non-pauper lunatics, epileptics, and feeble-minded could be confined in suitable establishments upon a different certificate to that now required*.” (3) “That Boards of Guardians should receive a grant of four shillings per week for every harmless lunatic, epileptic, or feeble-minded person sent to homes provided by them to the satisfaction of the Local Government Board.”—HERBERT PERRY.

The use of both hands.—At the North Hackney High School for Girls the principal, Miss Alice James, has instituted ambidextral training. It is said by reports in the daily papers that amongst some of the girls astonishing proficiency has been attained, and some can draw as rapidly and well with the left hand as with the right. Use of both hands is said to aid the development of the mind, and the child displays increased interest in all departments of study. This assertion seems to us difficult to prove. We should doubt whether a girl who learned to play the piano is likely to be, when adult life is reached, better equipped intellectually than one who had spent the time in drawing with one hand which her sister has given to the practice of music with both hands. There can be no doubt that in the human being the use of one hand in preference to the other is inborn. This fact was illustrated by an experiment mentioned in a recent lecture on the subject. A baby, out of seventy-nine trials, was found to take a ball seventy-five times with the right hand, and only four times with the left. Although it may be useful in more ways than one that training should not allow this inborn faculty to have too much of its own way, some observers have stated that to force a naturally left-handed child to become right-handed delays the development of speech. We have known one case where such appeared definitely to be the case. A boy naturally left-handed who was made to use his right was taught to speak by a brother nearly two years younger than himself. This delay in development of speech was not due to lack of mental power in the elder boy, because in later life he proved himself in competitive examinations to possess abilities considerably above the average.

Marie Corelli on babies.—In the ‘Strand Magazine’ Marie Corelli gives her views on the subject of babies. The following

description of parents' usual treatment of their infants will be recognised as not far from the truth:—A baby, "as quiet and meditative a little soul as ever took baby form," is seated on its mother's lap, who, "instead of sympathetically admiring the wistful little face," "seized the child in the usual sudden fashion, dandled it, pinched it, tossed it up, poked it, patted it, and rearranged the clothes." The father "foolishly chirruped" like a "hoarse sparrow," and the "whole parental pantomime first bewildered the baby and then destroyed its peace and comfort entirely," with the result that there was screaming, to stop which all attempts proved unavailing. Mothers, no doubt, have often themselves to blame for the restlessness of their infants. They train the baby to expect attention with the result that it is never happy unless it gets it. Even with a naturally restless child, to pick it up and dance it about directly it cries is often mistaken kindness. In children's hospitals we have been told that nurses often find the only thing to do when noisy infants are screaming in chorns is to walk out of the ward. When they find that screaming does not attract attention they have the good sense to realise that, if the exertion produces nothing in the way of compensation, they had better remain quiet.

Effects of the Child Employment Act.—The Hornsey Borough Council has inquired into the number of children in the district compelled to work during school hours. Apparently 7 per cent. of the children come into the category. One six-year-old boy worked $11\frac{1}{2}$ hours a week delivering milk, and there were fourteen other cases under the age of eight, and seventy-four between the ages of eight and ten. One boy, aged 13, worked $44\frac{1}{4}$ hours a week at a bootmaker's, and another, aged 12, was employed $35\frac{1}{2}$ hours a week delivering coal. A boy, aged 11, worked $43\frac{3}{4}$ hours in carrying parcels from a chemist's shop, and another boy, aged 13, worked 52 hours a week, but was obliged to play truant from school on one afternoon in each week in order to procure this amount of time, which averages nearly nine hours a day in addition to the time spent in school. The record number of hours was, however, held by a boy of thirteen who worked $58\frac{3}{4}$ hours delivering beer, but how often he played truant from school and whether he worked on Sunday is not mentioned.

The pay of the children in some instances is also worthy of note. Thus a girl of twelve worked seventeen hours a week after school sewing buttons on shirts, for which she received three-halfpence a dozen. Apparently she earned about eighteen-pence a week.

Cigars for boys.—A few years ago our attention was attracted to a picture in one of the comic papers—it was ‘Punch’ if our memory serves us aright—of some Scotch juveniles who had been caught smoking under the kirk walls by the sexton, who was so indignant at the sacrilege that he confided to them in broad Scotch that they might continue to indulge in the weed but as a consequence of their iniquity they would smoke more in the place they were gangin’ tae. Theological views have apparently undergone perversion since then, and now we find from the ‘Daily Mail,’ which has been compelled to defend a libel action successfully brought against it by a country vicar, that a gentleman who had a separate Bible class of elder boys, which was held in a separate room, had given some of the boys a cigar each on one occasion and a packet of cigarettes on another. These presents, according to the plaintiff’s counsel, were not a bribe to the boys at all. It was done out of kindness—mistaken kindness. The ‘Globe,’ on learning of the incident, could not restrain its feelings and burst forth into song to the following strains, the recitation of which provoked the judge and jury who tried the case to loud laughter.

O FUMOSE PUER.

Oh, teacher, I’m so happy
 In my little Sunday school;
 For my pipe is drawing nicely,
 And the mixture’s smoking cool.
 And I find it very pleasant
 Just to sit here blowing rings,
 While you give us your reflections
 On the Babylonian kings.

On a morning in October
 I resolved to change my ways,
 When you caught me, teacher, napping:
 You had chased me many days.
 For you whispered to me gently,
 As in vain I strove to pass,
 “I have smokes for little children
 Who attend their Scripture class.”

Oh, teacher, I’m—excuse me,
 For a moment, if you will.
 I am feeling slightly—bother!
 Why won’t the floor keep still!
 The bench on which I’m sitting
 Seems as frisky as a lamb.
 Am I—am I going—going,
 Am I going to—yes, I AM!

The art of smacking.—We are a little too much accustomed in our educational enthusiasms to assume the consent of the pupil. But children are not always so anxious to adopt the schemes elaborated for their guidance, and a paper on "Child Punishment," read before the Childhood Society last night, touches points that need some emphasising. The fact is that the punishment of children is a subject that wants studying just as much as any other branch of education. The right apportionment of smacks and sugar-plums is as delicate and important a matter as the arrangement of the hours for arithmetic and French exercises. We welcome a protest against exaggerated fears (on the part of the punisher) of corporal punishment. No angry blows, of course, and no hypocritical lectures beforehand—but a good sound whipping administered in a calm and friendly way will be found to have all the characteristics of *homocea*. To make the punishment fit the crime should be one of the most earnest studies of parents and guardians, and if attained in time this science will prove at least as valuable as any other in the education schedule.—'St. James' Gazette.'

Abstracts from Current Literature.

Surgery.

The operative treatment of prolapse of the rectum ('*Thèse de Paris*,' 1903).—**Lenormant** considers the various methods which have been recommended from time to time for the treatment of rectal prolapse, and gives a bibliography of the subject. In particular, he considers the operation of Verneuil and its modifications. This begins with a linear incision from the coccyx to the edge of the sphincter through which the posterior wall of the rectum is exposed and freed; it is then narrowed by picking up a number of longitudinal folds, and suturing these in such a way that the sutures do not encroach on the mucous membrane; lastly, the rectum is supported by attaching it to the ligamenta sacro-spinosa. Objections have been made to this procedure on the ground that only the posterior wall is attacked, and that the chief cause of the prolapse, the weakness of the pelvic floor, is unaffected. Lenormant has met these objections by exposing the anterior rectal wall through a second incision, and by bringing the levatores ani together after freshening their inner borders. He has successfully adopted this plan even in extreme cases, but for the worst cases he recommends colopexy.

KEITH MONSARRAT.

Intubation in diphtheria (croup).—For reasons that would be difficult to specify, intubation as a procedure undertaken for the relief of threatening

asphyxia from laryngeal stenosis, has not met with as much favour in England as it has in America and on the Continent. From the large number of encouraging reports which have appeared in the medical journals of recent years, some examples of which are subjoined, it may safely be concluded that intubation is an operation which has come to stay. Its advantages compared with tracheotomy are so apparent that no time need be wasted in enumerating them, while the objections brought against intubation are largely of that "bogey" order which vanish on closer acquaintance. It is, however, a mistake to set the two operations in opposition to each other as though they were mutually exclusive. If intubation fails, as it occasionally does, to relieve the respiratory distress, tracheotomy may be resorted to without the chances of the patient having been prejudiced by the introduction of the laryngeal tube. Montefusco, in a monograph published at Naples in 1903, narrates his experiences of 203 cases of diphtheria (croup) eighty of which were treated by intubation, in the Ospedale Contugno Naples. He holds that intubation should be tried before tracheotomy, and claims that when the latter is found necessary the presence of the laryngeal tube enables the surgeon to perform the cutting operation with ease and deliberation.

The difficulties experienced in entering the trachea of a child under the age of twelve months, and the indifferent success following the operation at this early age, are well known. Intubation, however, may be safely and successfully performed on young infants, as Montefusco and Sippel of Stuttgart found. The last-named author ('Med. Corresp.-blatt d. Württemb. ärztl. Landesvereins,' 4, 5, 1903) met with 350 cases of diphtheria in the space of eighteen months, of which 196 suffered from croup and 100 were intubated, with a mortality among the intubated cases of 10 per cent.; nine of the cases intubated had tracheotomy performed in addition, and of these five recovered. Montefusco's mortality of intubated cases was 26.5 per cent., and of Fairbank's thirty-three cases nine died ('Lancet,' June the 20th, 1903).

Henry H. Berg, in the 'New York Medical Record,' August the 1st, 1903, gives an analysis of 578 cases of intubation in the Parker Hospital. In seventeen of these cases a prolonged use of the tube was found necessary. According to this writer's extensive experience 60 per cent. of the cases of prolonged intubation recover, the least satisfactory being those in which the stenosis is due to paralysis of the vocal cords following on diphtheria.

Delcourt ('Journal Med. de Bruxelles, No. 30, 1902) reports a case in which the tube remained *in situ* for 284 hours, with recovery, and Montefusco, in the brochure quoted above, relates a case of intubation prolonged for seventy-two days. So that the length of time a tube may remain in the larynx without setting up any degree of local disturbance is very considerable. When it is found necessary to leave the tube in position for any length of time we are advised to withdraw it daily in order to clean it (Fairbank). When we add that the difficulty of withdrawing the tube, which deters most men from using it, may be overcome by the simple expedient of fixing the thread, with which the tube is provided, to the cheek by means of a piece of sticking-plaster, nothing in reason remains to prevent a more extended trial of intubation in this country. DAN MCKENZIE.

Notes on the appearance of a rash following the removal of tonsils and adenoids ('Medical Press and Circular, January 27th, 1904).—Wingrave has now seen sixty-one cases, and analyses them thus: The age-limit

was 1 $\frac{2}{12}$ to 23 years. Sex showed forty females to sixteen males. The rash appeared on second or third day; its duration was two to four days; polymorphous in character; situation chiefly on head and back; no desquamation. The temperature does not rise above 100° F. The arguments against this being a septic rash appear to be that one case occurred in Wingrave's hospital ward and another in his private practice. The other theories, as injury, mechanical, or inhibition of tonsillar alexine duties, these are not discussed at all fully. The rash is not considered a modified scarlet fever.

RICHARD LAKE.

The difficulty of distinguishing clinically between glioma of the retina and so-called pseudo-glioma (*Ophth. Soc. Trans.* vol. xiii, 1903).—**Percy Fleming and J. Herbert Parsons.**—The eye of a child, aged 6 months, was excised because it was supposed to contain a glioma. When the eye was opened a fine strand was seen passing through the vitreous from the optic disc to the back of the crystalline lens. In the latter position there was a mass of connective tissue. The eye was smaller than normal (= 15 mm.). On microscopic examination the fine strand was found to be a single, thin-walled, persistent hyaloid artery.

SYDNEY STEPHENSON.

Pemphigus of the conjunctiva (*Zeitschr. f. Augenheilk.* November, 1903).—**Paul Cohn.**—For about a month a Russian child, aged 11 years, had suffered from a disease of the skin characterised by the formation of blebs upon the eyelids, scalp, face, and body. When examined by Cohn signs of the eruption were to be seen upon the buttocks, cheeks, lips, eyelids, and scalp. The mucous membrane of the mouth was not involved. The right palpebral fissure was wholly obliterated by adhesion of the lids one to the other; no cilia were visible. The condition as regards the left palpebral fissure was not quite so pronounced. Under ether, the ankyloblepharon was divided and the fissures lengthened. The lower palpebral conjunctiva showed several ulcerated spots, evidently resulting from recent blebs. The eyeballs, however, were intact, and there was no synblepharon. The immediate result of the operation was good, and the child left the hospital on the eighth day. Cohn's paper concludes with references to thirteen more or less similar cases.

SYDNEY STEPHENSON.

Medicine.

Sudden death and the thymus (*Amer. Med.* June 20th, 1903).—**J. P. Crozer Griffith** regards as causes of sudden or unexpected death in infancy (*a*) *coryza in the new-born*, giving rise to aspiration on the "so-called" swallowing of the tongue, which, being drawn backwards and upwards, prevents the entry of air; (*b*) *pertussis*, acting in a similar way; (*c*) *asphyxia* from overlying, though he thinks many of these have died from other causes; (*d*) *spasm of the glottis*, due to irritability of the nervous system in rickets and debility, or even independent of either—some of the cases ascribed to this cause are really due to syncope; (*e*) *enlarged thymus* and the *status thymicus*.

An abnormal predisposition to sudden death in children and adults has been found associated with enlargement of the thymus and lymphoid tissues, possibly due to a constitutional disturbance from faulty metabolism. It is

probable that the enlarged gland can produce death by simple pressure. Paltaut denies this, and thinks the condition described by him as the status lymphaticus, in which the spleen, thymus, and lymph-glands are enlarged, is essential. It is quite feasible to suppose that death in such cases may be due to (1) pressure; (2) laryngo-spasm; or (3) lymphatic constitution.

EDMUND CAUTLEY.

Enteric fever (*Arch. of Pediatrics*, vol. xxi, p. 81, February, 1904).—**Adams** gives a *resumé* of 337 cases admitted to a children's hospital in Columbia during three decades, 1872-1903, the records of 1885 and 1897 having been lost. Sixty-two per cent. were admitted in July, August, or September. Only 11 were over twelve years of age, the age of admission having been gradually reduced from fifteen down to twelve years in 1888. Only one case was under one year. There was a decided increase in cases admitted after the fourth year. The mode of infection was ascribed to oysters 1, milk 3, water 25, and direct contagion 27. The mortality was 14.2 per cent., and was reduced from 30.7 in the first decade to 11.1 in the third. This was ascribed to the introduction of trained nursing, and to the use of hydro-therapeutic measures, viz. cold sponging, cold packs, and the bath according to the system of Brand. Autopsies were held on 37 of the 48 fatal cases with the discovery of the following lesions:—Perforation 11, all in the ilium; hæmorrhage 19, no bleeding vessel found; nephritis 4; and affections of the respiratory organs 4, circulatory 4, brain 3, peritoneum 2, bladder 1. Cancerum oris was present in 4 cases and all died. Relapses occurred in 9.4 per cent., but only resulted fatally in one. The diazo-reaction was present in 40.1 per cent. of 182 cases, sometimes not until the third week. Widal's test was positive in 58 out of 70 cases (86.8 per cent.). In about half the cases the course of the disease was mild. The writer regards intestinal antiseptics as of no benefit, and lays most stress on hydro-therapeutic measures and good nursing.

EDMUND CAUTLEY.

Cases of optic papillitis in enteric fever in children (*The Ophthalmoscope*, February, 1904).—**George Carpenter** gives details of two cases of enteric fever in children aged respectively seven and eleven years, where a mild form of optic papillitis was observed during the course of the illness. In the first case the papillitis was found on the sixty-first day, and in the second on the twentieth day of the fever. It recovered in one case, but the other patient was lost sight of.

SYDNEY STEPHENSON.

Double optic neuritis as a complication of whooping-cough (*Archives of Ophthalmology*, July, 1903).—**Gamble**.—The attack of whooping-cough had been a severe one, and slight double optic papillitis was observed four weeks after the beginning of the illness. The patient was eight years of age. Gamble gives the following conclusions:—(1) optic neuritis complicating whooping-cough seems to occur most frequently in girls (four cases, all girls); (2) it occurs with or without evidence of cerebral complications; (3) vision may or may not be disturbed; (4) prognosis as to sight is good when no cerebral complications exist; (5) that optic neuritis may result from direct action of toxins of pertussis upon the nerve-head.

SYDNEY STEPHENSON.

Note on the toxicity of ascarides (*La Pediatría*, May, 1903).—**C. Cattaneo** made some experiments to ascertain the accuracy of a generally

prevalent belief that intestinal worms have no pathogenic importance, and to explain, on the other hand, the different morbid manifestations attributed to them. The worms, obtained by spontaneous expulsion from children without the intervention of anthelmintics or purgatives, were placed alive in a liquid consisting of salt, glucose, peptone, and bicarbonate of soda, made to resemble to some extent the intestinal contents, for twenty-seven to thirty-six hours at a temperature of 30°. The solution became turbid, and examination revealed numerous micro-organisms, specially spermatozoa and ova of the worms, and numerous torulæ. Cultures gave rise to *Bacillus coli*, streptococci, and a fluorescent bacillus: the alkaline liquid became acid, lactic acid being formed, and the amount of glucose and peptone reduced. The solution was then filtered and injected into the peritoneal cavity of six guinea-pigs, which were attacked with paresis of the hind limbs; true convulsions were not marked; control experiments negatived the supposition of a bacillary infection. The author believes that the symptoms were caused by a poison secreted by the ascarides.

VINCENT DICKINSON.

A case of eosinophilia in the breast-fed infant of a woman affected with *Tænia mediocanellata* (*Rivist. di Clin. Pedriat.*, 1903, p. 310).—**Gagnoni** records the case of an infant, born of robust parents, who began to exhibit, at the age of three months, want of appetite, pallor of the mucous membrane, slight convulsive movements during sleep, restlessness, somnolence, and cachexia. Evacuations pasty. The mother suffered from polyphagia and epigastric pain, but was otherwise healthy. Her blood contained 8 per cent. eosinophiles, while that of the infant contained 12 per cent. Examination of the mother's fæces showed proglottides of *Tænia mediocanellata*. After expulsion of the worm the eosinophiles were reduced to 1 per cent. The infant's condition also improved, and a fortnight later the eosinophiles were reduced to 2.5 per cent., the normal figure in an infant.

VINCENT DICKINSON.

Bothriocephalus latus (*Dent. Aerzte. Ztg.*, January 1st, 1904, p. 2).—**B. Bendix** records a case in a girl aged 4½ years. She had been in good health until May, 1902, when she suffered from a violent attack of vomiting and diarrhoea. At the commencement of the attack, which continued for five days, she passed a tapeworm measuring nearly forty inches in length. Macroscopically the parasite presented certain features which suggested that it was not a *Tænia*. The microscope showed it to be a *Bothriocephalus*, and characteristic ova were discovered in the stools. The child was pale, and the red corpuscles and hæmoglobin value of the blood were found to be somewhat reduced. The number of leucocytes was normal, but the lymphocytes were qualitatively increased, and the eosinophile cells formed 8 per cent. (instead of only 2 to 4 per cent.) of the total number of the white corpuscles. The parasite was expelled by treatment with filix mas. The case is of interest on account of the great rarity of the occurrence of this parasite in children: it indicates, too, that this possible source of an otherwise unexplained anæmia must be borne in mind in the case of the child as well as in that of the adult.

E. P. BAUMANN.

The treatment of tapeworms (*Prag. med. Woch.*, February 4th, 1904).—**G. von Ritter** recommends the use of an extract of pumpkin seeds in the treatment of tapeworms. Filix mas is the drug which hitherto has yielded the best results, but every now and again cases arise in

which the administration of even small doses of the liquid extract has been followed by convulsions, collapse, blindness, and other toxic symptoms. Hence a strong prejudice has arisen in many quarters against the use of this drug. With the view to obtaining a remedy that is at once reliable, palatable, and possessed of no toxic effects, the writer experimented with some other anthelmintics. Cusso, which was used for a period of four years, yielded unsatisfactory results. He next turned his attention to the action of pumpkin seeds, an old but little known remedy. Formerly the seeds themselves were administered. In this form satisfactory results were not obtained. The writer used an extract of pumpkin seeds (prepared by Jungelaussen, of Hamburg). Seventeen cases were treated by this extract, comprising sixteen cases of *Tenia solium* and one of *T. mediocanellata*. Two of the patients were adults; the rest were children ranging in age from fourteen months to nine years. In three cases the treatment failed. In three others it was not entirely successful in so far that a second course of treatment was required before the head of the *Tenia* was expelled. In the remaining cases the administration of a single dose resulted in complete expulsion of the parasite. The dose of the extract corresponds to 300 grammes (10 ounces) of the seeds. It is administered in the usual way, *i. e.* upon an empty stomach, the bowels having been previously emptied; afterwards the patient is further purged. The drug is palatable, and in no case was its administration followed by untoward results. On examination pharmacologically the extract was found to be free from toxic constituents, such as alkaloids or filicic acid: it produced no reaction when injected intra-venously in rabbits.

E. P. BAUMANN.

Infectious œdema of the glottis (*Le Progrès Médical*, March 12th, 1904).—**Deguy and Detot**, at the Société de Pédiatrie, Paris, on January the 19th, read notes of the case of an infant nineteen months old, who had been ill for a week with slight cough and increasing dyspnoea of twenty-four hours' duration. It was unattended by a brassy cough or alteration of the voice, and the infant was brought to the hospital suffering from intense dyspnoea with stridulous breathing and without signs of diphtheria. On intubating extensive œdema of the ary-epiglottic folds was found, and without retro-pharyngeal abscess. Dyspnoea persisted in spite of intubation, and at the end of half an hour the tube was ejected. So great was the difficulty of breathing that tracheotomy had to be resorted to at once. After the operation the dyspnoea disappeared and the breathing became natural. But the day after the œdema of the glottis returned, the temperature was raised, albumen appeared in the urine, dyspnoea recurred without obstruction in the tube or signs of broncho-pneumonia. Finally the infant died cyanosed four days after admission into hospital. At the post-mortem examination they found œdema of the ary-epiglottic folds and false vocal cords, tracheitis with ulceration from the tube, and intense congestion of the lungs without broncho-pneumonia. An examination of the blood taken from the heart immediately after death revealed *Staphylococcus aureus*, which, inoculated into animals, was very virulent and produced œdema. The authors attributed the condition to staphylococcus infection, but they were unable to say how the infection had been produced.

THEODORE FISHER.

Foreign body in the larynx or the bronchi (*Le Progrès Médical*, March 12th, 1904).—**Guinon**, at the Société de Pédiatrie, Paris, on January

the 19th, related the case of a child of twelve years under his care at the Trousseau Hospital who was brought there asphyxiated and was tracheotomied while *in extremis*. There was no evidence of diphtheria, and a bacteriological examination proved negative. Four days after the tracheotomy tube was removed. Seven days later the difficulty of breathing reappeared, and the tube had to be replaced. Four days afterwards another attempt was made to discontinue the tube, but it had to be replaced in two hours' time. On the twenty-seventh day the tracheotomy tube was removed, and the child was easily and satisfactorily intubated. Two attempts to discontinue the intubation tube were made, but it became necessary to replace it two hours after the first attempt and a day and a half after the second. Owing to a suffocative attack, the tracheal wound had to be reopened and the canula replaced. About a month after this M. Lermoyez ascertained the presence of a black foreign body, which totally obstructed the larynx, and four days later he extracted a large collar-button by means of a blunt hook. The tracheotomy tube was removed on the eighth day, and the wound rapidly healed. The child related that while playing with some friends she had swallowed a shirt-button, which she had in her mouth at the time. She did not suffer any inconvenience from the mishap, and it was not until a long time afterwards that she experienced difficulty of breathing, which gradually became worse, and which culminated in a visit to the hospital. M. Guinon could not satisfactorily explain how it came about that the intubation tube had been able to pass into the larynx when it was blocked by a foreign body. He wondered whether it was possible for the button to have been displaced sufficiently in a lateral direction to allow the intubation tube to pass it. On the other hand, he speculated whether it was lodged in the subglottic region and was subsequently displaced by coughing. The hypothesis was barely admissible by reason of the size and shape of the foreign body.

THEODORE FISHER.

Old highland therapy (*Caledonian Medical Journal*, January, 1904).—**Mrs. K. Whyte Grant** records some interesting examples of old highland therapy. The health of her native district was so good that there was no resident doctor, and there does not appear to have been much need for the services of one. "The death of an infant was of such rare occurrence that it moved the whole neighbourhood. When last I visited the place, a man over fifty, remarking upon the burial of an infant that afternoon, said he remembered to have witnessed a child's funeral only twice in his life before—that was, he explained, of babes belonging to the strath. These were cases of croup. The children were each under three years of age, and death occurred after less than twenty-four hours from the time of the seizure." Perhaps the following paragraph supplies the explanation of the low infantile mortality:—"There was not a single 'bottle baby' to be found in these days. Every mother nursed her own babes, even if there were a dozen of them." The customs attendant on the birth of a child are not so worthy of approbation. "In our neighbourhood, at a confinement, the habit was, after the child was born, to give the mother a glass of whiskey and a piece of oatcake, spread with fresh butter. Then a bit of the cake was toasted till it was black; it was crumbled finely and mixed with water, sugar, and whiskey. This food was given to the child until the natural supply came. Sometimes, after the babe was swaddled, it was taken by the heels and shaken, head downwards, 'to prevent it from taking colic.'"

G. A. SUTHERLAND.

The visceral manifestations of the erythema group of skin diseases ('*Amer. Journ. of the Med. Sci.*,' January, 1904).—**Osler**, in an interesting paper on this subject, records a further series of eleven cases, making a total of twenty-nine cases which have come under his own observation. Eight of the patients were under ten years of age, and thirteen were between the tenth and twentieth years. The following notes of some of the juvenile cases show the multiplicity of symptoms present in this disease:—Case xix: Female, 15 years; onset, with erythema over cheeks and nose, in October, 1889; puffiness of one small joint; oedema of one eyelid; increase in the erythema and swelling of the face; marked puffiness and stiffness of the hands; recurring attacks of erythema of the face and local infiltrations in different parts of the body; slight fever; in March very high fever; acute nephritis; death from uræmia, May 13th, 1900. Case xx: Male, 15 years; attack of severe colic; admission to the surgical side for suspected appendicitis; a week before a purpuric eruption on the legs, with high-coloured urine; rash of exudative erythema on the legs, with purpura; acute nephritis; recovery. Dr. Osler notes that this case is particularly interesting on account of the fact that he was admitted to the surgical side of the hospital with abdominal symptoms, which were suspected to be due to appendicitis. In another case renal colic was diagnosed. This side of the question was referred to in the '*British Journal of Children's Diseases*' for January, where two cases of Henoch's purpura are recorded in which laparotomy was performed, the diagnosis in one case being intussusception, and in the other acute peritonitis. Case xxi: Male, 12 years; otitis; swelling of the hands and legs; extensive purpuric rash; acute nephritis; cramps in the abdomen and vomiting; recovery. Case xxii: Female, 6 years; swelling of the legs, with purpura and pains in the knees and ankles; colic; acute nephritis; recurrent attacks of purpura, with urticarial wheals; recovery. Case xxiii: Female, 14 years; history of attacks of pain in the knees; colicky pains, with nausea and vomiting and diarrhoea for many years, sometimes with swelling of the feet; enlargement of the spleen; recurring attacks of purpura, with abdominal pain and vomiting; outbreaks of erythema; recovery. By the publication in full of his cases, and by his most able discussion of the clinical phenomena, Dr. Osler has certainly broadened the basis of our knowledge of this little understood affection or group of affections. He shows how in the "erythema group" we have at different times in the same subject purpura, erythema, angio-neurotic oedema, and urticaria, and visceral complications, which may be of an angio-neurotic or of an inflammatory character. He refers to the gravity of nephritis as a complication, five out of the seven fatal cases having died from uræmia.

G. A. SUTHERLAND.

Bladder irritation in girls ('*Med. Press*,' February 24th, 1904).—**W. Dunnett Spanton**, after referring to the various causes of this trouble, describes three cases of a somewhat unusual character. The symptoms were frequency of micturition and dysuria, tenderness of the urethral orifice, and the passage of shreddy masses *per urethram*. These masses on microscopical examination were found to consist of an aggregation of woollen fibres entangled in mucus. Investigation then showed that the children were wearing thick woollen combinations, rather rough at the edges, and Mr. Spanton found that the fibres of these exactly corresponded with those found in the urine. He concludes that there had been chafing of the urethra, and that some of the fibres had wormed themselves along it into the

bladder, and so set up the irritation. Removal of the woollen garments and the substitution of smooth ones, along with the use of diluents, led to a rapid and permanent relief of the symptoms. The first two cases were sisters, aged three and six years respectively, and the third case was a child of five years. In the last of these the presence of crystals of uric acid and oxalate of lime seems enough to explain all the symptoms without the addition of woollen fibres, but in the two other cases no such source of irritation existed.

G. A. SUTHERLAND.

Widespread lesions due to Weichselbaum's diplococcus (*Société de Pédiatrie*, November the 17th, 1903).—**Rist** and **Paris** reported the case of a boy, aged eleven, who was admitted with hæmorrhagic purpura. This lasted for twenty-four days, and was accompanied by intestinal symptoms. For the next fortnight convalescence seemed steady, but then hæmaturia set in and continued for twenty-six days. When this ceased a fairly high fever suddenly appeared, and for a fortnight oliguria with albuminuria. Lastly, meningeal symptoms occurred, and the boy died in forty-eight hours.

At the autopsy purulent cerebro-spinal meningitis was found and Weichselbaum's diplococcus isolated therefrom. Small multiple abscesses were present in the liver and kidney, but no organism could be obtained from them. The authors attribute the whole course of events to an infection by Weichselbaum's diplococcus.

A. ERNEST JONES.

A new method of discovering the presence of tubercle bacilli in cerebro-spinal fluid (*Riv. di Clin. Pediatr.*, 1903, p. 387).—**R. Jemma**, struck by the frequent failures to demonstrate tubercle bacilli in the cerebro-spinal fluid in cases of tuberculous meningitis, even after centrifugalising, has injected the fluid into the mammary gland of guinea-pigs four or five days after parturition. The injections were made with a fine needle inserted obliquely in front of the teat towards the centre of the gland sac which leads from the teat to the vulva. The quantity of liquid injected varies from 1 to 3 cm. In a few days the gland hardens and swells, the lacteal secretion becomes serous and yellow, then purulent; glandular infection takes place, and the animal succumbs to a generalised tubercular process. From the eighth to the fifteenth day, Koch's bacilli are found in the mammary secretion. The author considers this method much superior to the peritoneal method usually adopted, in which a positive diagnosis cannot be established for four weeks.

VINCENT DICKINSON.

The ætiology of urticaria in infancy (*Deut. Aerzte. Ztg.*, January 1st, 1904, p. 4).—**R. Bendix** records a case of urticaria in a boy aged 13 months. The eruption first appeared at the age of four months, when his mother gave him the white of an egg beaten up in soup. On every subsequent occasion on which eggs were included in his diet the eruption reappeared. The form in which the egg was taken was immaterial. The reaction was experimentally produced on several occasions while the child was under observation in hospital. An itchy urticarial eruption on each occasion appeared on the face within ten minutes after taking a few sips of milk in which an egg had been beaten up; the rash went as rapidly as it came, and in about fifteen minutes the face had resumed its natural appearance. The same effect was not produced on ingestion of the white of egg into the skin or into the mucous membrane of the mouth. It seemed,

therefore, to depend actually upon the absorption of some toxic product from the bowel. The proteids of milk and of meat never produced the reaction; the egg-albumen alone seemed to be able to cause it. The writer considers the case to be one of great interest for two reasons: (1) the extreme rarity of recorded cases in which the eating of fresh eggs has produced urticaria; (2) in spite of the long lists of articles of diet which are known occasionally to produce urticarial eruptions, it is comparatively seldom that the offending article is definitely recognised; generally we are glad to be able to point to the existence of some constipation or intestinal catarrh. He recommends that in every case of urticaria, whether acute or chronic, the effect of stopping all egg foods should be tried. In two cases of chronic urticaria this measure proved very efficacious.

E. P. BAUMANN.

Functional lateral spinal curvature (*Le Progrès Médical*, March 12th, 1904).—**Broca**, at the Société de Pédiatrie, Paris, on January the 19th, showed a girl of twelve years with an extensive dorso-lumbar spinal curvature, which was produced without any appreciable determining cause four days after a fall which did no harm to the child at the time, and nothing occurred the day after or on the three following days. On the fifth day, after a walk, she commenced to limp a little, and then rapidly developed lateral curvature of the spine. A rest for fifteen days did not improve matters. There were no rickety bony lesions, nor was there anything amiss with the hip-joints. Although he found no evidence of hysteria, Broca considered it to be a case of scoliosis from hysterical contraction. He related another case of cervical contracture immediately following an injury in a child who was equally free from hysterical evidences—a painful contraction with flexion of the head on the side away from the seat of the pain, and which recovered in twenty-four hours under continuous extension.

THEODORE FISHER.

Myositis ossificans (*Le Progrès Médical*, March 12th, 1904).—**Comby**, at the Société de Pédiatrie, Paris, on January the 19th, showed a girl aged 8 years with this affection. When fifteen months old she had some painful lumps in her back, considered at first to be Pott's disease, but subsequently recognised by M. Ménard as myositis ossificans. There were a number of ossified nodes in the muscles and tendons, the biceps, the muscles of the back and the trunk, the junctions of the muscles with the tendons, and in the tendinous insertions at the os calcis and trochanter, etc. The osseous nodes did not resemble exostoses. The child's parents were healthy.

THEODORE FISHER.

Mortality of measles (*La Clinique Infantile*, February 1st, 1904).

—**Variot** read a paper before the Société de Pédiatrie, Paris, on January the 19th, on a statistical study of cases during 1903 at the new building of the Hôpital des Enfants-Malades, Paris. Variot shows that, thanks to the new building and the isolation of children attacked by broncho-pneumonia following measles, the mortality from that complaint has been greatly reduced in comparison with that which occurred in defective situations and without the possibility of isolation. During 1903 six hundred and one children with measles were admitted into the hospital, with a mortality rate of 12·31 per cent. in place of one of 29 per cent. which occurred in 1898 at the Trousseau Hospital. Up to one year the proportion of deaths from

measles was about a third of the cases. Infants from one to two years furnished the largest number of deaths, the mortality rate being 23·45 per cent.; next came those from two to three years, the mortality rate being 8·84 per cent.; and the mortality rate considerably diminished in the case of older infants. From one to two years of age broncho-pneumonia constituted the most frequent and the most deadly complication. Small glass partitions separate the cots in the large ward on the first floor. Many little independent wards with two cots are used for isolating children with broncho-pneumonia and other contagious disorders, and special nurses are employed and aseptic precautions are rigorously adopted. By isolating the children with this complication, the spread of the disease can be prevented in the common wards. Variot concludes that measles, like whooping-cough, is much aggravated by overcrowding and by insanitary conditions. It is only necessary to improve the hygiene to render the disease milder. Hutinel and Comby approve of Variot's remarks, which were in accordance with their personal experience.

THEODORE FISHER.

Treatment of thrush by peroxide of hydrogen solution (*Journal de Médecine de Paris*, January 21st, 1904).—**Merletti** treats thrush successfully by a combination of two remedies, which are often employed separately, but without the same satisfactory results. With a large camel's hair brush the buccal mucous membrane is first rapidly painted with hydrogen peroxide solution, and this is immediately followed by a 5 per cent. application of borate of sodium. The peroxide of hydrogen produces an abundant froth with liberation of nascent oxygen, which is very destructive to the *Oidium albicans*. In many instances applications thrice daily for two or three days in succession were sufficient to cure severe confluent cases. Two or three applications in recent cases completely arrested the development of the fungus.

JEAN FERRAS.

A unique case of infantile lead-poisoning (*Rivist. di clin. Pediatr.*, 1903, p. 316).—**G. Berti**.—From the time of weaning at fourteen months to the twenty-sixth month the infant suffered from "scurf," for which Hebra's lead ointment was prescribed, which was used by the mother with great vigour by rubbing it into the hairy scalp twice a day and covering with cotton wool. A month later the child became sallow and weak in its limbs, unable to stand, the head retracted and slightly to one side, in an attitude suggestive of torticollis or cervical arthritis; there was a tender spot to the right of the fourth and fifth cervical vertebrae, mydriasis of the right pupil, but both reacted to light, slight ptosis of the left lid, no strabismus or nystagmus, voice weak and toneless, inspiratory movements deficient; marked paresis, especially in lower limbs, with loss of muscular tone, Faradic reaction generally feeble, and lost in the quadriceps. Elbow-reflex existed on both sides, but patellar reflex was absent. Organs of sense and retina normal. Constipation and abdominal retraction. No blue line. Urine acid, no albumen, showed dark precipitate with sulphide of ammonium, and responded to the sulphuric-acid and iodine tests for lead. Severe attacks of dyspnoea subsequently occurred. An iodide was prescribed, and resulted in complete cure.

VINCENT DICKINSON.

The relation between infantile dyspepsia and the presence of ferments in the mother's milk (*Rivist. di clin. Pediatr.*, 1903, p. 535).

—**A. Filia** undertook some experiments to ascertain whether the mother's milk contains substances which stimulate the digestive and assimilatory processes in the infant's organism, in order to explain the fact that in some infants who seem to digest well the conditions of assimilation are deficient, while in others with imperfect digestion the conditions of development and increase of weight are normal. The results showed that the milks which fed either healthy or dyspeptic infants were alike in regard to the chemistry of their ferments, both having a similar quantity and quality. The desire to ascertain the greater or less value of a certain milk by the examination of its ferments is therefore fallacious; the principal cause of primary infantile dyspepsia lies in the organism of the infant itself, more especially in the feeble activity of the proteolytic enzyme secreted by the pancreas.

VINCENT DICKINSON.

Arterial tension in healthy children and its modifications in pneumonia (*La Clin. Med. Ital.*, February, 1903).—**L. Beretta** has made sphygmographic observations on 236 children from the first day of life to the age of twelve years, using the new sphygmograph of Dr. Riva-Rocci. He found that in the first year in healthy infants the arterial pressure was not less than 54 mm. of mercury; from 1—4 years, 75 mm.; from 5—7 years, 88 mm.; from 8—9 years, 93 mm.; and from 10—13 years, 96 mm. In pneumonia he found there was rise of pressure during the acme and rapid diminution during the crisis; that in fatal cases the low tension was early, persistent, and exaggerated; that in favourable cases the low tension occurred later, was less marked and of less duration, and the return to the normal pressure was gradual. Thus, if the period of hypertension lasts all through the height of the disease, and the lowering of tension takes place at the moment of crisis rapidly, the prognosis is favourable; if, on the other hand, the period of high tension is of short duration, and especially if lowering of tension occurs before crisis takes place, then the prognosis is unfavourable.

VINCENT DICKINSON.

Acute fibrinoplastic iritis in a newly-born baby (*Zeitschr. f. Augenheilk.*, August, 1903).—**Adolf Håla** describes a case of acute fibrinoplastic iritis in a newly-born baby, associated with interstitial keratitis, due to congenital syphilis. The first child was born dead; the second died fourteen days after birth, from "weakness" (*Schwache*); and the third child, the present patient, was born at term. Syphilis was denied by the mother. A fortnight after birth the patient developed an eruption of bullæ on the palms and soles, and afterwards red patches about the nose and forehead, and the eyes became affected somewhat later, when the other manifestations had disappeared. When ten weeks of age the baby fell under Håla's care. The child was then normally developed and well nourished. Paronychia was present on the toes. The right eye was congested and its tension a little raised. The cornea showed diffuse interstitial opacities, and its surface was stippled. The iris was changed in colour, and covered, especially in its outer part, with a greyish-white exudation. The pupil, which was occluded, was somewhat dilated and irregular. In the iris three stout vessels could be seen radiating from the periphery towards the pupil. The left eye was also inflamed, but to a less extent than the right. There appeared to be no pain. Treatment by injections and calomel internally, and atropin and warm applications to the eyes, led to a relatively rapid improvement.

SYDNEY STEPHENSON.

Bilateral internal ophthalmoplegia in a lad suffering from hereditary syphilis (*La Clinique Ophthalmologique*, February 25th, 1903).—**Cruchaudeau**.—The patient was ten years of age, and was recognised as the subject of syphilis by the stigmata presented by his cornea, fundi, teeth, and maternal history. There was ophthalmoplegia interna. Twenty-four injections of benzoate of mercury resulted in ability to read the finest print and return of pupillary reaction, although one pupil remained larger than the other. So far as he has been able to ascertain, Cruchaudeau considers the case to be unique.

SYDNEY STEPHENSON.

Congenital staphyloma of the cornea (*Archivio di Oftalmologia*, 1903, vol. ii, fasc. 1, 2, p. 2).—**Gallenga** discusses these cases and then reports one of his own of bilateral intra-uterine keratitis with staphyloma of the right eye in a child affected with hereditary syphilis. The results of the microscopical examination he gives in detail, the eye having been enucleated at the age of fourteen months. From the clinical facts and pathological observations related by others and observed by himself Gallenga concludes that, in a certain number of cases, there is not a true irido-corneal staphyloma following ulcer and perforation of the membrane, but rather an ectasia of the cornea consecutive to an intra-uterine irido-choroiditis. Intra-uterine keratitis is secondary to a pathological process of the uveal tract, especially of its anterior part, and it assumes the character of the so-called "internal ulcer of the cornea" described by v. Hippel. Amongst the pathological details recounted by Gallenga we may notice the very advanced atrophy of the anterior part of the uveal tract and of the pigmentary elements of the entire choroid. It is probable that such an eye, without the profound changes of the anterior segment, would later show pathological albinism, on which the reviewer has insisted when describing the rudimentary stigmata of hereditary syphilis.

SYDNEY STEPHENSON.

The hepatic function in children (*La Clin. Med. Ital.*, January, 1903).—**D. Crisafi** has experimented with levulose in children affected with various diseases, and states that an enlarged liver does not necessarily imply a liver functionally inactive, as shown by the amount of levulose that can be administered without producing levulosuria. He concludes that levulose is the best drug for gauging the function of the liver; that in children there is no relation between the quantity of levulose utilisable and the body weight; that the dose to administer is 25—40 grammes up to five years of age, 40—60 grammes up to twelve years; that in acute infectious diseases the liver performs its functions well; that nephritis and slow tuberculous processes are those which disturb most the hepatic functions; that the phenyl-hydrazine test is the most sensitive in order to test minute traces of levulose in the urine.

VINCENT DICKINSON.

Favus in the new-born (*Gazzetta med. Ital.*, 1902, No. 50).—**TRUFF** describes a case of erythematous squamous favus in an infant 25 days old. Microscopical examination and culture investigation, however, showed that the lesions were caused by the *Achorion Schoenleinii*. Inoculation of the culture into a rabbit produced a characteristic honeycomb favus. The case is noteworthy from two points of view—first from the deviation of type produced by the achorion, and second from the early age of the patient.

VINCENT DICKINSON.

Sclerema (*Brit. Jour. Dermat., January, 1904, p. 19*).—**T. Colcott Fox** showed a case of sclerema recently at the Dermatological Society of London. The patient was an infant of ten months, who was brought to the hospital at the age of three months for wasting, and for what the mother called "a bladder" on the right flank, which had been noticed for two months. The condition had altered little since then. The abdominal walls were diffusely thickened, but did not pit on pressure. The surface was rather glistening, and slightly coloured from venous congestion, but was not specially cold to the touch. More recently the surface had become uneven, owing to the formation of "nodules," which were soft, and were due to thinned areas of the skin which were bulged out. It was an area of this character which the mother had termed "a bladder." Dr. Fox pointed out that conditions like the above were in his experience much more typical of this disease than the common text-book description, where the extreme gravity, the cold marble-like induration, and the lung and circulatory complications were emphasised. It looked as if sclerema were an infective disorder, and it was suggestive that with improved hygienic conditions the disease had almost disappeared. G. A. SUTHERLAND.

Flat warts (*Brit. Jour. Dermat., January, 1904*).—**Graham Little** describes a case of this disorder in a boy of ten years. The warts were closely aggregated on the forehead, and seemed to have developed on the site of freckles, the warts being distinctly pigmented. They had lasted for five months without undergoing any perceptible change. There were also a few on the hands of the common papillomatous type. The incidence of the eruption on previously existing freckles was commented on. G. A. SUTHERLAND.

Adrenal hæmorrhage (*Amer. Jour. Med. Sci., January, 1904, p. 134*).—**L. S. Dudgeon** records four cases. (1) Female, aged two years and eight months, who died from thrombosis of cerebral sinuses and veins, purpura, and thymic abscess. The *Staphylococcus aureus* and *albus* were cultivated from the heart blood. (2) Female, six years, died from extensive burns. (3) Female, one year, ten months, who died from gangrenous varicella. The pneumococcus was cultivated from the heart blood. (4) Male, who died suddenly at fourteen weeks of age, from broncho-pneumonia.

In the first two cases the hæmorrhage was unilateral, in the others bilateral. Such hæmorrhage is generally a complication of other maladies. Arnaud (*Archiv. générales de Médecine*, 1900) speaks of asthenic, peritoneal, and nervous types. Dudgeon adds to these—

- (a) Cases in which the onset and symptoms suggest an acute specific fever.
- (b) Cases with severe skin lesions, purpura, etc.
- (c) Those in which it is a mere complication found post mortem.
- (d) Hæmorrhage in the new-born.

Etiologically, it is found that such hæmorrhage is generally idiopathic—that is, no cause can be found. In others it may be ascribed to the hæmorrhagic disease of the new-born, septicæmia, pyæmia, toxæmia, gastro-intestinal infections, and diseases associated with venous stasis or increased blood-pressure. Scurvy, too, may cause it.

From the fact that nine out of twelve of the recorded cases in which an acute specific fever was suspected were unvaccinated, it has been ascribed to variola. The evidence is insufficient, and the hæmorrhage may be due to any acute microbial infection or an acute toxæmia, probably intestinal. The

peritoneal type also suggests an acute abdominal lesion. Some cases have been clearly due to food-poisoning. EDMUND CAUTLEY.

Diastasis of the recti muscles in rickets (*Archiv of Pediatrics*, vol. XXI, p. 116, February, 1904).—**Francint** states that diastasis of the recti muscles is very frequent in rachitic infants and young children. It is best demonstrated in children who are old enough to put the muscles on the stretch by elevating the head and shoulders. It varies much in extent, may appear as early as the fifth month, is very slow to disappear, and may last until puberty. Possibly it is a predisposing cause of visceral ptoses, the abdominal walls never regaining their tonicity. Two factors are concerned in its production: (1) lack of tonicity of the abdominal muscles, causing weakness of the abdominal wall; (2) dilatation of the stomach and colon, secondary to gastro-intestinal fermentation. "Pot belly" is produced in a similar manner. Diastasis may be present in healthy infants and children, but is usually only present above the umbilicus, whereas in the rachitic it involves the whole of linea alba. Frieljung states that it occurs in 75 per cent. of healthy children. EDMUND CAUTLEY.

Infantile nephritis (*Archiv of Pediatrics*, vol. XXI, p. 19, January, 1904).—**Fry** and **Martin** examined the urine of 100 infants under three months of age, three specimens being obtained in each case on different days. The urine was obtained by applying cold above the pubes or by manipulation of the meatus, causing reflex stimulation of the bladder. Of the 100 infants, 35 were breast-fed, 65 bottle-fed. The *specific gravity* varied between 1001 and 1028, average 1006.1. The *reaction* was acid in 64, neutral in 36. In the breast-fed it was acid in 78 per cent. as compared with 91 per cent. in the artificially fed; and neutral in 22 per cent. and 9 per cent. respectively. In no case was the urine alkaline. *Albumen* was tested for by acetic acid and potassium ferrocyanide, and by cold nitric acid. It was found present in amounts varying from a faint trace to a distinct ring with nitric acid, in 19 cases, and of these 15 were artificially fed. The age of these 19 was under ten days in 6, from ten days to end of first month in 5, one to two months in 8. *Cast*s were found in 17 of these 19 cases; in 10 they were only found in one sample. They were mainly hyaline and granular, a few epithelial, no blood casts. Casts were also found in 14 other cases in which no albumen was detected. *Uric acid* was abundant in 26 cases, and was associated with albumen and casts in 14, with casts only in 9, with albumen only in 1, and with neither albumen nor casts in 2. Hence in only the 3 without casts could it be said that there was no evidence of renal irritation or nephritis. Of the remaining 23, 16 died and 7 were examined post mortem. In all these were found uric acid infarcts, paraneurmatous nephritis, and degeneration of the convoluted tubules. An acute interstitial nephritis was also present in 3 of the 7. Six other fatal cases showed clinical evidence of nephritis, viz. oedema of the face and limbs, and signs in the urine. The writers lay stress on the above relationship, and point out that nephritis in infants is not alone due to toxic conditions in marasmus, that it may be associated with an excess of uric acid, and that it may be recovered from. I would also add the suggestion that it may be the starting point of those cases of chronic interstitial nephritis, sometimes seen in children, and ascribed by Guthrie, Sutherland, and others to congenital syphilis. EDMUND CAUTLEY.

The therapeutics of protylin (*Wien. klin. Rundschau*, 1904, Nos. 11 and 12).—**M. v. Bilgorajski** discusses the value of the administration of phosphorus in various pathological conditions. The existing preparations of this drug are not satisfactory, and the writer was led to undertake a number of clinical observations upon the action of protylin, a new preparation of organic phosphorus. This substance, which is also made up with iron and in other combinations, is an albuminate of phosphorus in the form of a tasteless and almost odourless powder. It is easily borne, and may be administered in milk or soup. The writer observed its action in thirty cases, a number of whom were children. The dose is 1—2 drachms for children under 5, and 1—3 drachms for children of 5—12 years. As a result of his observations he strongly recommends its use in rickety and scrofulous children, in all bone affections, and in cases of convalescence from pyrexial conditions. In cases in which there is marked anaemia he advocates the use of the iron combination of protylin. He finds that both iron and the bromides yield more rapid results when administered in combination with this drug.

E. P. BAUMANN.

Croup complicating measles (*Monatsschr. f. Kinderheilk.*, February, 1904, Band II, No. 11, S. 599).—**M. Vargas** records an instance of this rare condition. The case was that of a child, aged twenty-five months, suffering a typical attack of measles complicated by broncho-pneumonia, gastric and renal disturbances, and presenting some reddening of the pharynx. On the thirteenth day of the illness the child complained of pain in the neck and developed a croupy cough and stridulous breathing. The presence of diphtheria was suspected, but the submaxillary glands were not enlarged, and no exudate was seen on inspection of the naso-pharynx. On palpation of the epiglottis and vestibule of the larynx the tissues were found to be soft and swollen; no foreign body was discovered, and the palpating finger did not bring away any shreds of membrane. By the following day the condition had further progressed, and the patient now presented a dangerous degree of asphyxia. Intubation was performed and produced immediate relief, but the pulmonary lesions were very serious, and death occurred eleven hours later from cardiac and respiratory failure. At the autopsy the larynx was found free of any membranous exudate, containing only a small quantity of frothy mucus. Bacteriological cultures revealed the presence of streptococci, Fränkel's diplococcus, and a few staphylococci; no diphtheria bacilli could be demonstrated. In view of the clinical and pathological conditions the case was undoubtedly not one of diphtheria. The writer reviews the literature of the subject and finds that only twenty cases have been recorded of the occurrence of non-diphtheritic croup as a complication of measles. He believes that the condition is produced by the combined action of the organism which has produced the measles and other organisms, such as Fränkel's diplococcus, the streptococcus, and the staphylococcus. The result is the production of an intense inflammatory swelling of the mucous membrane of the respiratory tracts, which spreads upwards and invades the tissues of the glottis. The process is in some cases characterised by the presence of small ulcers which occur in the greatest numbers upon the posterior wall of the larynx. The diagnosis of croup offers no difficulties; bacteriological examinations must be resorted to in order to distinguish inflammatory from diphtheritic croup. The treatment consists in the early stages of inhalations, the administration of sedatives, and the application of

counter-irritants to the neck to relieve reflex spasm which tends to aggravate the stenosis. Once swelling and ulceration of the mucous membrane have occurred, such measures will prove of little avail. If the asphyxia grows serious, surgical intervention becomes necessary. Except when there is marked broncho-pneumonia the author prefers the operation of tracheotomy in these cases, as the pressure of an intubating tube is apt to increase the tendency to the formation of ulcers of the mucous membrane.

E. P. BAUMANN.

Reviews of Books.

THE CARE AND FEEDING OF CHILDREN. By L. EMMETT HOLT, M.D., LL.D.
Third Edition. London: Sidney Appleton, 1904.

THIS little work is described as a catechism for the use of mothers and children's nurses, and is dedicated to the young mothers of Great Britain and America. In an introduction by Dr. Eric Pritchard, he refers to the enormous advantages which the American system of percentage feeding of infants has produced, but we are glad to see that this system, which is very distinctly on its trial, is not recommended by Dr. Holt in his book. In fact, there is nothing on the subject of infant feeding which will not be accepted as representing the best teaching on both sides of the Atlantic. The manner in which the subjects are treated, by a succession of questions and answers, makes the book specially suitable for the class of readers, intelligent mothers and trained children's nurses. We notice that beef juice is included as part of the diet of a healthy infant during the first year of life, but in this country it is usually considered necessary only in certain forms of illness. While we have nothing but praise for the part of the book dealing with infant feeding, we think that the subject of diet after twelve months is not quite so successfully treated. In this country bottle-feeding is considered unnecessary long before the twentieth month. The term "milk-teeth" is apparently translated literally in America. On page 108 we read:—"The child must be taught to chew his food. Yet no matter how much pains are taken in this respect, mastication is very imperfectly done by all children; hence up to the seventh year at least all meats should be finely cut, all vegetables mashed to a pulp, and all grains cooked very soft." No wonder that dentistry flourishes in America, if the American child chews nothing until he is seven years old!

G. A. SUTHERLAND.

Correspondence.

THE LIVERPOOL COUNTRY HOSPITAL FOR CHILDREN.

To the Editor of THE BRITISH JOURNAL OF CHILDREN'S DISEASES.

SIR,—The generous anonymous donor to the Liverpool Country Hospital gave £5000 to the charity and not £3000 as announced in your last issue.

I am, sir, yours faithfully,

CHARLES J. MACALISTER.

Rodney Street, Liverpool, April, 1904

THE
BRITISH JOURNAL
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Original Articles.

STRANGULATED INGUINAL HERNIA IN AN INFANT
TWENTY-EIGHT DAYS OLD; OPERATION TWO DAYS
LATER: RECOVERY.*

By R. CLEMENT LUCAS, B.S., F.R.C.S.,

*Consulting Surgeon to the Evelina Hospital for Sick Children; Senior Surgeon
and Lecturer in Surgery to Guy's Hospital.*

THE following report was made by Mr. H. H. Mayle, the Ward Clerk.

J. E—, who was born on June the 27th, 1903, was admitted into Guy's Hospital on July the 27th, 1903, suffering from a strangulated right inguinal hernia.

He was the first child of healthy parents and had been breast fed. He grew fat and looked well, but the mother stated that he frequently seemed in pain, often crying when passing urine or faeces, and sometimes vomiting part of the milk taken.

On the evening of Saturday, July the 25th, when being washed, the child's scrotum was noticed to be swollen. The same night he was seized with a violent fit of screaming and vomited several times. A doctor was called in the next morning, but vomiting continued all day and the following night, and on Monday, July the 27th, the

* Read before The Society for the Study of Disease in Children, October the 16th, 1903.

medical man advised the parents to bring the child to the hospital. His bowels had not acted for two days, and he had vomited everything he had taken since Saturday.

When admitted into the hospital he appeared to be a plump, healthy child, suffering from pain and sickness, with a distended abdomen.

On examining the scrotal region three distinct swellings were observed. The scrotum itself was dark blue in colour, firm, and distended. Above this, in the right inguinal region, another tense swelling was found. There was a distinct interval between the two, in which the cord could be felt. The left half of the scrotum was empty, but the left testis could be felt just outside the external abdominal ring forming the third swelling.

Mr. Clement Lucas, on examining the case, determined to explore the upper swelling on the right side at once, thinking this might be a strangulated funicular hernia. The swelling in the scrotum, which was tense and dark, he attributed to serous effusion and blood, partly as the result of pressure above and partly due to taxis. On the left side the testis had not descended into the scrotum, and was probably associated with an unclosed vaginal process of peritoneum into which some fluid from the abdomen, which quickly follows obstruction in infants, had probably made its way.

The operation was performed about 3.30 p.m. on July the 27th. A.C.E., and subsequently chloroform, were administered, and Mr. Lucas cut down upon the right inguinal swelling, making an oblique incision in the direction of the inguinal canal. When the skin and superficial fascia had been divided, the swelling exposed was dark blue in appearance. To explore its relation to the testis the right testis was pushed up into the wound and the tunica vaginalis showed blood extravasation, as if the result of taxis. The two swellings were not continuous except so far as the cord connected them. Picking up the sac it was divided with scissors, when some blood-stained serum escaped, and at the bottom a small knuckle of intestine was exposed. This was about the size of the end of one's forefinger, and dark purple in colour, but it had not lost its lustre. A blunt dissector was passed up by the side of the bowel, and by drawing the instrument forwards the neck of the sac was stretched, after which the bowel was, by gentle pressure, slipped back into the abdomen. Some drachms of clear serous fluid escaped from the abdomen after the bowel had been replaced. The sac was tied and cut away, and two buried silk sutures were put across the canal and ring to complete a radical cure. A continuous horse-hair suture was used

for the skin. A sealed dressing of gauze, collodion, and iodoform was applied to protect the wound, and cyanide dressings over.

The patient's temperature rose to $103\cdot6^{\circ}$ the same night, but fell to normal on the following day, and never again rose higher than 99° whilst in the hospital. His bowels acted freely during the night and vomiting ceased after midnight.

July the 30th.—The patient was dressed for the first time, and the scrotum showed signs of irritation, due probably to the antiseptic dressings. The temperature varied during the day from 98° to 99° . Boracic fomentations were applied.

August the 7th.—The stitches were removed, as they were causing slight superficial suppuration. Temperature had continued normal.

August the 9th.—The boracic fomentations were discontinued and dry dressings applied.

August the 11th.—A sealed collodion and gauze dressing was applied.

August the 12th.—The wound being soundly healed and the child in excellent health, he was to-day discharged.

Remarks.—Strangulated hernia in infants is of special interest not only from its comparative rarity, but for the reason that it is very liable to be overlooked. Vomiting and colic from injudicious feeding are so common that the graver condition of hernial strangulation may be easily confounded therewith. The relative proportion of strangulation in children compared with adults is given by C. Stern* as 1 to 108, which is easily accounted for by the greater elasticity of the tendinous and fibrous structures in young children. It will be noticed that the form of hernia present in the case related was that known as “funicular,” the upper part of the vaginal process of peritoneum into which the hernia had descended being shut off from the tunica vaginalis of the testis. Howard Marsh† relates a similar case in the ‘St. Bartholomew’s Hospital Reports’ for 1874, and gives a table of forty-seven cases of strangulated hernia occurring in children under the age of fourteen. Of these all except four were herniæ into congenital sacs. Two of the exceptions were cases of the “Infantile hernia of Hey,” and two others did not communicate with the tunica vaginalis, and were therefore probably funicular. Of twenty-five in which the side was mentioned nineteen were on the right and only six on the left.

The first series of cases of strangulated hernia in children appears

* ‘Centralblatt für Chirurgie,’ 1894.

† ‘St. Bartholomew’s Hospital Reports,’ 1874.

to have been collected by Rovoth* in 1858, who put on record 30 cases. Saniel,† in 1894, collected 128 cases. Knoblach and Stern‡ collected 153 cases, of which 138 were inguinal, 14 umbilical, and 1 femoral. Moynihan,§ who published a case in 1897, concluded from the foregoing researches that strangulation was more common in the earlier months of childhood than in the later, as shown by the following table of cases occurring during the first twelve months:

During the 1st month 16 cases occurred.

„	2nd	„	15	„	„
„	3rd	„	14	„	„
„	4th	„	9	„	„
„	5th	„	4	„	„
„	6th	„	7	„	„
„	7th	„	3	„	„
„	8th	„	6	„	„
„	9th	„	9	„	„
„	10th	„	3	„	„
„	11th	„	3	„	„
„	12th	„	4	„	„

He also drew attention to the fact that retention of urine is frequently mentioned as present.

The seat of strangulation is in a majority of cases at the neck of the sac; thus Saniel found it in this situation in 58 out of 81 cases examined. The next point of frequency for the constriction is at the external abdominal ring. Marsh found it there in 7 out of 32 cases in which the site was mentioned.

Cases of strangulated hernia in infants under one year of age have been recorded in this country by Macnamara,|| Beck,¶ Dobbin,** Haslewood,†† Steele,‡‡ D'Arcy Power,§§ Kidd,|||| Maclaren,¶¶ and MacLaurin.***

* 'Die herniotomie bei kindern. Deutsche klinik,' No. 29, 1858.

† 'Revue mensuelle des maladies de l'enfance,' May, 1894.

‡ 'Centralblatt für Chirurgie,' 1894.

§ 'Lancet,' September 25th, 1897, vol. ii, p. 789.

¶ 'Lancet,' vol. ii, 1879, p. 505.

¶ 'Brit. Med. Journ.,' vol. ii, 1882, p. 1151.

** 'Lancet,' vol. i, 1881, p. 979.

†† 'Lancet,' vol. ii, 1884, p. 1171.

‡‡ 'Lancet,' vol. ii, 1899, p. 279.

§§ D'Arcy Power, 'Lancet,' vol. ii, 1899, p. 889; and vol. i, 1901, p. 1536.

|||| 'Lancet,' vol. ii, 1899, p. 1016.

¶¶ 'Lancet,' vol. ii, 1899, p. 1907.

*** 'Lancet,' vol. i, 1900, p. 1281.

The symptoms almost invariably commence in infants with a violent fit of screaming which cannot be pacified, indicating that the child is suffering agony. This form of commencement is usually present in other forms of obstruction, such as intussusception, from which the presence of an irreducible hernial tumour devoid of impulse sufficiently distinguishes it. Vomiting rapidly follows, and persists or recurs whenever the infant is put to the breast or fed. Constipation is usually not noticed till some hours later, and then the mother frequently notices another change—that the diapers are seldom, if at all, moistened by urine. Suppression or great diminution in the amount of urine passed, when occurring in adults during obstruction, is generally accepted as indicating that the constriction is high up in the small intestine. This does not appear to be a sufficient explanation of the cases under discussion. It is possible that spasmodic retention may account for a limited number in whom reduction is early effected; but the general depression of circulation and tendency to collapse, which rapidly supervenes upon strangulation in infants, probably accounts better for what is a suppression of urine rather than a retention.

Another point to which I wish particularly to draw attention is the rapid effusion of a large quantity of serous fluid into the sac, so as to render it for the most part transparent. This has more than once led to an error in diagnosis, and the sacs have been tapped as hydroceles. This serous effusion is not confined to the sac of the hernia, the general peritoneal cavity sympathises and pours out fluid as the case goes on. It will be noticed in the case related, that in addition to the serous effusion into the funicular sac which contained the bowel, there was a large collection in the tunica vaginalis below forming a tumour of considerable size quite separate from the sac, and further, that the fluid escaping from the abdominal cavity into a congenital sac associated with an undescended testis on the left side, formed a third tumour in the left inguinal region.

Another symptom much more marked in infancy than in adults is the early tendency to collapse. This, again, is easily accounted for by the necessity in early infancy of frequent feeding and the rapid loss of nutrition dependent on the persistent vomiting. Pain, too, which is ill-borne by infants, doubtless contributes to the collapse. When, however, relief has been afforded, the natural recuperative force of childhood will in the majority of cases, where asepsis can be maintained, bring about a rapid recovery.

To sum up the symptoms peculiar to infants as compared with adults: first, there is the violent screaming fit impossible to pacify;

secondly, the tendency to suppression of urine as well as constipation ; thirdly, the rapid effusion of serous fluid into the sac, rendering it translucent, and effusion into the general peritoneal cavity ; fourthly, the greater tendency to rapid collapse.

A CASE OF CONGENITAL COXA VARA WITH ASSOCIATED DEFORMITIES.

By J. JACKSON CLARKE, M.B.Lond., F.R.C.S.,

Surgeon to the North-West London Hospital and to the City Orthopedic Hospital.

DEPRESSION or incurvation of the neck of the femur, otherwise known as coxa vara, is of rare occurrence as a congenital condition ; the only recorded case that I am aware of is that of Kredel.* The condition is of importance, since it is very likely to be mistaken for congenital dislocation of the hip, and then a wrong method of treatment would probably be adopted.

A case that came under my care last year was that of a girl aged 2 years. A skiagraph of the pelvis is shown in Fig. 1. It shows the neck of the left femur to be bent to a right angle with the shaft of the bone, whilst the upper end of the femur on the right side is normal, the neck of the bone forming a very obtuse angle with the shaft. There were other deformities, also congenital, in both lower limbs ; on the left side the knee was bent at an angle of nearly 45° , and no trace of the corresponding patella could be felt ; the quadriceps extensor of the knee also appeared to be absent, not being appreciable to palpation, and the child had no power of actively extending the knee when the latter was fully flexed. The foot was in a condition of severe talipes equino-varus, and the left lower limb was stunted, being fully three inches shorter than the right. These two latter peculiarities are shown in the photograph, Fig. 2. The abnormalities of the right lower limb do not appear in the photograph, though they were well marked and consisted in an over-flexed condition of the knee (*genu recurvatum*) and talipes calcaneo-valgus.

Two other features are apparent in the skiagraph. First, the sacrum appears to be deflected towards the deformed left side and, second, the upper part of the os innominatum is flattened, apparently

* Kredel, 'Cent. fur Chir.,' No. 42, 1896.

from the pressure of the neck of the femur; for this, like the other deformities present, can reasonably be explained by assuming that the limbs had in intra-uterine life been cramped in an abnormal position.

The clinical aspect of the case may be simply expressed. The patient was sent to me as a case of congenital dislocation of the hip. The patient had never attempted to walk, and the parents had been given to understand that she never could be made to walk. On

FIG. 1.



examination many of the characteristic features of congenital hip-dislocation were present. Thus (1) the great trochanter was elevated to the level of the anterior; (2) abduction of the limb was limited, the adductors becoming tense when the thigh was brought to the line of the trunk; and (3) there was an unnatural hollowness of Scarpa's triangle. I could not, however, feel the head of the femur on the dorsum ilii, as is usual in a dislocation associated with inversion of the limb, as was the case in this instance, nor could I obtain any up and down movement of the trochanter on alternately pushing up and drawing down the limb. Any doubt that remained was put at rest by the excellent skiagraph that was obtained in a somewhat rebellious

patient by Messrs. J. and H. Davis. Before concluding that the coxa vara was a congenital one, the possibility of its being due to rickets had to be considered. The child had fairly well-marked rickets among other signs, the fontanelle was still fairly large, and the dentition delayed. The position of the limbs noticed at birth, the associated deformities of the pelvis as seen in the skiagraph, tell conclusively in favour of the congenital origin of the coxa vara. It might also be thought that the fact that the child had never walked

FIG. 2.



would prove that the deformity was congenital, but against this it might fairly be urged that in severe rickets coxa vara may develop before walking begins.

Treatment.—A few words may be added as to the treatment of this case. The foremost indication was to encourage growth in the left limb, and to this aim it was most important to enable the patient to walk as soon as possible. Before this could be effected the adduction and inversion of the limb must be corrected. This I did by a free subcutaneous division of the adductors and the anterior parts of the glutei medius and minimus and tensor fasciæ femoris. The knee

also had to be brought straight by complete open division of the adductors. It was a question, in view of the shortness of the left limb, whether it would be better to leave the foot in the equinus position. I decided this in the negative, from past experience of the bad effect on growth that such a position in infancy entails. I therefore fully corrected the equino-varus. The patient left for home two months after the commencement of treatment. Needless to say I fully prescribed daily passive exercises and massage, and designed and applied appropriate instruments, without which the good effect of the operative treatment would have been in vain. The parents carried out my instructions completely, and after six months again brought the child to see me. One most interesting feature to be noted was that the patella of the left side had appeared in the interval, and I am hopeful that evidence of the presence of some of the quadriceps extensor will follow. The child, wearing a 3-inch patten on the left boot and her instruments, can walk readily round a table, helping herself a little by the hands, and she can unaided already take a few steps forward. Both feet are now normal in form. The left knee is improving under the influence of an apparatus that maintains complete flexion during the night-time.

TWO CASES OF MICROPHTHALMOS, ONE SLIGHT AND THE OTHER EXTREME.*

By SYDNEY STEPHENSON, C.M.,

Ophthalmic Surgeon to North-Eastern Hospital for Children, and to the Evelina Hospital for Children.

CASE 1.—Albert W—, aged 6 years, first seen at the North-Eastern Hospital for Children on March the 31st, 1904. The child is moderately intelligent, and, save for his eyes, presents no obvious deformity beyond preputial adhesions and a poorly-marked post-anal dimple. His face and legs are deeply pitted from a recent attack of smallpox. Height, $37\frac{1}{2}$ in.; weight, $37\frac{1}{2}$ lbs. A small convergent squint of the left eye is present. The eyes and eyelids are obviously small. The palpebral fissure on each side is 23 mm. in length and 6 mm. in height. The transverse diameter of each cornea measures 8 mm. There is fairly rapid lateral nystagmus, which practically ceases when the lad looks strongly upwards or downwards. There are traces of connective tissue about the central

* Read before The Society for the Study of Disease in Children, April the 15th, 1904.

vessels on each optic disc. No coloboma of the choroid or other coarse fundus change. Refraction (estimated under emmydrine) :—

$$\begin{array}{lcl} \text{R. E. : } & + 3.0 \text{ sph.} & + 8.0 \text{ sph.} \\ & + 2.0 \text{ cyl. } 90^\circ; & + 1.0 \text{ cyl. } 90^\circ. \end{array}$$

CASE 2.—Mariel E—, aged 1 year and 4 months, first seen at the Evelina Hospital on March the 22nd, 1904. The baby had been born at term, after a labour lasting two days, without instruments. She was born apparently without eyes. There is no family history of deformities.

The normal position of the eyes is marked by a depression, just as if the eyes had been removed surgically. No facial paralysis. Eyebrows, nose, and neighbouring parts well formed. The palpebral fissure on each side measures 5 mm. in length. Upper cilia thick and numerous; lower cilia finer and more scanty. Tears run over the cheek whenever the baby cries, which she does during the whole of the examination. Upon deep palpation through the upper eyelids a small body, resembling a pea in size and shape, can be felt in each orbit. It is difficult to separate the eyelids, but when this is done by a small speculum, mucous membrane can be recognised, but nothing more.

Remarks.—The two foregoing cases, although at first sight they appear to be very different, are both, I think, examples of microphthalmos. The elder child shows merely unusually small eyes and eyelids, lateral nystagmus, convergent squint, and hypermetropic astigmatism of greater degree in one eye than in the other. The associated congenital conditions include preputial adhesions and a post-anal dimple. In the younger child the conditions are very different. The eyebrows, nose, and neighbouring parts are well formed, but the eyes themselves appear to be absent. When the eyelids are separated (by no means an easy thing to do) a mucous membrane can be recognised lining the interior of the palpebral aperture. When the child cries, tears run over the cheek from between the palpebral fissures. Upon deep palpation through the upper lids a small body, like a pea, can be felt towards the back of each orbit. No other deformities are present.

Not many years ago my first case would have been called one of microphthalmos and my second anophthalmos. It is now becoming recognised, however, that both are instances of microphthalmos, although of very different degrees. The term anophthalmos, strictly speaking, should be applied only to cases where no rudiment of the eyeball can be either seen or felt in the orbit, even when the

examination is made under a general anæsthetic. Such cases undoubtedly occur, but they are extremely rare. In some of those examined the optic nerve does not enter the orbit or is absent altogether, while in others there is no optic chiasma or tract, or the external geniculate bodies or the optic foramen is missing. There have been one or two instances where the olfactory lobe was absent as an associated lesion. In all likelihood the small body present in the orbit in my second case represents a rudimentary eyeball containing more or less immature nervous elements, and upon that ground I prefer to regard it as an example of extreme microphthalmos rather than of anophthalmos.

In some cases of extreme microphthalmos more or less delicate cysts have been found to be connected with the ill-developed eyeball. These are interesting from a developmental point of view, since they contain tissue that may be recognised as of retinal origin. This modified retinal tissue is found upon dissection to be anatomically continuous with the folded retina which lines the rudimentary eyeball. No cyst of the kind described can be made out in my second case.

In discussing the question of microphthalmos *versus* anophthalmos, E. T. Collins and J. H. Parsons ('Trans. Ophthal. Soc.,' vol. xxiii, 1903) have recently pointed out that the essential element of an eye is the nervous mechanism, receiving visual sensations and transmitting them to the brain. They suggest that when there is complete failure in the development of this mechanism—as, for example, when the chiasm or the optic nerve is absent—the condition should be regarded as one of anophthalmos. On the other hand, if the eye is smaller than usual, and there is even an imperfect attempt at the formation of the nervous mechanism, the case is to be looked upon as one of microphthalmos. It is unfortunate that this scientific distinction between the two conditions is one that can be established with certainty only by a microscopic examination.

THE TREATMENT OF HERNIA IN YOUNG CHILDREN.*

By P. LOCKHART MUMMERY, M.B., B.C., F.R.C.S.,

*Demonstrator of Operative Surgery, St. George's Hospital; Assistant Surgeon,
St. Mark's Hospital.*

I THINK this subject is a very important one, and a profitable one for discussion in this Society.

* Read before The Society for the Study of Disease in Children, February the 19th, 1904.

This Society now holds an important position as an authority upon the treatment of children's diseases, and any statement of opinions which will aid in establishing a satisfactory method of treatment, especially for such a common condition as that of hernia, cannot fail to be of value.

And it is rather with the object of starting a discussion, and obtaining a definite opinion upon this important subject than with the object of bringing before you anything new or original, that I am reading this paper.

The number of cases that one meets with of hernia in infants and young children is very considerable, and it has always seemed to me that the treatment of these cases in young children by the use of trusses is very unsatisfactory.

There are several reasons for this. In the first place, it is not an easy matter with a fat baby to obtain a truss which will remain in position and keep back a hernia without having one with a very strong spring, and this is apt to result in a short time in considerable soreness of the skin, which in infants is very ill adapted to withstand pressure.

The old wool or worsted truss, which is so much vaunted in all the text-books, and which is still used as a pitfall for the examination student, is, so far as my experience goes, absolutely useless. Its only value seems to consist in the fact that it enables the child to be taken home before the hernia comes down again. Even if the wool truss were capable of keeping up the hernia, it is quite useless as a curative agent, as it does not cause sufficient pressure upon the neck of the sac to have any chance of obliterating it.

The only cases in which the use of a truss can be expected to be of any real service in curing a hernia in a child are those cases where the parents are sufficiently well off to be able to obtain the services of a skilled nurse to look after the child, and to pay for the necessary trusses. Then, if the nurse is able to change the truss without allowing the hernia to come down, and is able to prevent the child's skin from getting chafed by the constant pressure of the truss, a satisfactory result may be sometimes obtained.

However, it will be necessary for the child to wear the truss constantly, night and day, and even then the time before a cure of the hernia can be expected to take place is considerable. It is seldom, even under the most favourable conditions, that anything approaching a real cure of the hernia can be secured in less than a year, and in most cases it is two years or more before the truss can be dispensed with, while in many cases the use of the truss fails altogether

to cure the condition. So that even under the most favourable circumstances the use of a truss for the purpose of curing a hernia in a child, means that we must condemn the child to wear a truss constantly for a period of probably two years, and that even then we may quite fail to cure the hernia. And if we are successful in effecting a cure of the hernia in the sense that it no longer comes down, we leave the child with a condition which in many cases predisposes to hernia later on in life. For the treatment with a truss, even if successful in curing the hernia, still leaves the sac partly unobliterated, since in most cases the sac is congenital and cannot be returned into the abdomen. This leaves the child with a hernial sac which is ready at any time to receive a hernia should the abdominal wall give way. And, in fact, the child is predisposed to the recurrence of the hernia later on in life.

That this may occur is shown by the following case :

A sailor boy, aged 14, came to St. George's recently to be operated upon for a scrotal hernia which had appeared after a strain two months previously. His history showed that he had had an exactly similar hernia when an infant, and that it had been apparently cured after wearing a truss. I suppose the neck of the sac had been partly obliterated by the pressure of the sac, sufficient to keep up the hernia, but when the boy began to lead an active life the adhesions in the neck of the sac were no longer able to bear the strain, and the old hernia recurred.

And although it is very difficult to obtain any statistics upon this point, the conditions found in a large number of cases of hernia in adults seem to show that this occurs much more commonly than is generally supposed.

As regards the use of a truss for the treatment of cases met with in hospital practice, I think that it is very rarely of any use. The mother is seldom sufficiently intelligent to be able to change the truss without allowing the hernia to come down, and even if she is, the expense of two trusses to start with and the subsequent new trusses and repairs that will be necessary renders it impossible in most cases to satisfactorily carry out the treatment. As a rule one finds that the hernia constantly comes down behind the truss, and that the latter is simply pressing upon the neck of the sac ; in which case the truss is not only useless but is a source of danger, as it predisposes to strangulation.

When, as is the case with children and infants, the object of the truss is to cure the hernia by causing obliteration of the neck of the sac, it is most important that the hernia should not come down at all.

And this requires much more care and attention than most out-patient mothers are able to afford.

I think the most satisfactory method of treatment of these cases is by operation.

The objection that surgeons had against operating upon young children is almost a thing of the past, and we now know that children stand operations almost as well as adults, providing always that certain precautions are taken.

The treatment of hernia by operation has two great advantages.

First, that it gets rid of the sac, and, secondly, that it enables us to cure the hernia in the space of about three weeks, and does not necessitate the wearing of an instrument by the child.

The operation which I have performed in these cases, and which I am inclined to think is a very suitable one, is a modification of Barker's operation. The usual incision is made, and the sac separated up to the internal ring. The sac is opened, and with one finger inside to act as a guide and to keep back the intestine, the neck of the sac is ligatured over the point of the finger as high up and as near to the internal ring as possible. The sac is then cut away on the distal side of the ligature. The peritoneum is separated slightly with the point of the finger from around the internal ring. One end of the ligature is threaded upon a hernia needle of suitable size, and the needle is passed into the internal ring and made to perforate all the thickness of the abdominal wall from the inside, so as to emerge about half an inch above the ring. The other end of the ligature is threaded and brought through the abdominal wall in a similar manner, so as to emerge a little distance from the first end of the ligature. Then, by drawing upon the ends of the ligature, the neck of the sac is drawn away from the internal ring, and the ends are tied together, so as to retain the neck of the sac in its new position.

The internal ring is not stitched up. I think that, at any rate in infants, it is neither necessary nor advisable to stitch up the ring; the tissues are very delicate and badly adapted for stitching, and if the cause of the hernia, namely, the congenital sac, is removed, the ring itself soon contracts and gets rid of any weak spot in the abdominal wall. Moreover, by not stitching up the ring a good deal of time is saved, and this is a matter of great importance when operating upon young children. In older children, or where the ring is very large, it is better to close the ring with one or two stitches. In many cases the operation may be simplified by not dissecting out the serotal portion of the sac, but dividing it above.

This operation is very quickly performed, and this is a desideratum of the greatest importance in operating upon infants. The chief difficulty in the operation is in defining the sac, which is often extremely thin and delicate.

In all these cases the after-treatment of the case is a most important factor, and the chief point is, I think, the position in which the child is nursed.

The best position in which to nurse the child after a radical cure of hernia is with the legs slung up to a cross-bar.

Stirrups are attached to each leg by means of extension strapping, and both legs are slung up to a horizontal bar over the top of the cot, in much the same way as in treating a fracture of the shaft of the femur by Bryant's method.

This position has several advantages :

1. It is comfortable, and at the same time prevents the child from moving about to an undesirable extent.

2. It enables the child to be kept clean easily ; a matter of no little importance in these cases.

3. It affords very valuable support to the inguinal rings, and prevents an undue amount of pressure being thrown upon them just after the operation by the child crying, etc.

4. It relaxes all the tissues in the neighbourhood of the wound and so allows healing to take place rapidly and effectually.

As regards the age at which the operation can be performed I do not think that one can fix any limit.

The youngest child I have operated upon for hernia was six months old, though I know that other surgeons have operated upon younger children.

I think, however, that it is seldom necessary, or even advisable, to operate upon very young infants for this condition. Apart from other considerations, the operation is rendered much more difficult owing to the smallness of the parts and the extreme delicacy of the sac, which is often very difficult to find.

The hernia can be safely left to itself, and so long as no truss is applied there is very little risk of strangulation. Later on, when the child is a year or eighteen months old, the operation can be performed and the hernia cured.

The risks of the operation are very slight. I do not myself know of a single case which ended fatally, or in which there was any serious complication.

I have collected thirty-nine cases of radical cure of hernia in infants and young children, and among these there was no case that

ended fatally and very few cases in which there were any complications. Out of the whole thirty-nine cases, swelling and inflammation of the testicle, on the side on which the operation was done, occurred in one case, and the swelling very quickly cleared up.

The formation of a hæmatoma in the wound occurred in two cases, and in one case the wound suppurated and there was a septic rash for a few days, which gave rise to a suspicion of scarlet fever, but it cleared up in a few days without any untoward symptoms. In several of the cases treatment by a truss had been tried and had failed.

Since I commenced to write this paper, one upon the same subject has been published in the 'Lancet' by Mr. Robert Campbell, and in it he reports 114 cases of radical cure of hernia in young children without a single death, and with very few complications. So that the risks of the operation for radical cure in infants and young children do not seem at any rate to be greater than when the operation is performed upon adults, that is to say, very slight indeed, and certainly less than the risk which a child runs from strangulation when wearing a badly fitting truss.

A CASE OF HEMI-HYPERTROPHY IN WHICH THE INTERNAL ORGANS WERE AFFECTED.*

By ROBERT HUDCHISON, M.D., F.R.C.P.,

*Assistant Physician to the London Hospital and to the Hospital for Sick Children,
Great Ormond Street.*

THOMAS F—, aged 4 months, was the fourth child of the family, the three others being healthy. He was born at full time after an easy labour, and his mother's health during her pregnancy was good. The condition about to be described was noticed at birth.

He was a healthy, well-developed child. There were three small capillary naevi in the skin, one above the right knee, one in the left lower axilla, and the other below the left scapula, but with that exception he presented no abnormality save for the condition of the left arm and leg. The viscera were healthy. The asymmetry involved the left arm and leg, and to some extent the trunk also, but the head, face, and tongue were quite symmetrical. There was no abnormality of the digits. The asymmetry of the limbs was apparently due to an increase in the subcutaneous tissues of the left side ;

* Read before The Society for the Study of Disease in Children, February the 19th, 1904.

the condition in the leg, particularly, closely resembling a diffuse lipoma. Measurements showed that the left forearm was an inch and a half greater in circumference than the right, the left calf two inches greater than the right, the left thigh an inch and a half larger than the right. There was no difference in the length of the limbs on the two sides. The left chest had a circumference of one inch more than the right at the level of the nipples, whilst the left side of the abdomen at the level of the umbilicus exceeded the right by an inch and a quarter. The skin on the left side showed no difference in colour from that on the right.

The case was regarded as one of hemi-hypertrophy of the "false" sort, *i.e.* involving the soft parts only, and not affecting the bones. Shortly after he was first seen the child was attacked by bronchopneumonia and left-sided empyema, to which he succumbed. A careful post-mortem examination was made by Dr. Salaman, of which the following are the chief results:—

The increased thickness of the left limbs and left side of the trunk was due entirely to an increased deposit of subcutaneous fat. There was no evidence of any mevoid tissue or vascular dilatation. The bones on the left side were no thicker than on the right.

The brain was normal and symmetrical, and the pineal and pituitary bodies presented no abnormality. On the other hand, most of the paired organs were decidedly larger on the left side than on the right. This is shown by the following weights:—Left kidney, 56 grammes, right, 28 grammes; left suprarenal, 42 grammes, right, 14 grammes; left testicle, 2·3 grammes, right, 0·55 grammes. The lungs could not be satisfactorily compared owing to the presence of a left-sided empyema and pneumonia. The heart seemed normal in its development, and the two lobes of the thyroid were symmetrical.



On the other hand the left lobe of the thymus was decidedly larger than the right, but their exact relative weights do not appear in the report. The liver presented the usual degree of relative development of its left and right lobes, but contained some multiple angiomas.

Remarks.—Post-mortem examinations on cases of hemi-hypertrophy are so rare that the above case seemed worth recording. The asymmetry of the internal organs was most striking, and suggests that the hemi-hypertrophy in such cases cannot be the result of any mere "trophic" influence, but must date back to embryonic life, and be the consequence of unequal segmentation in the ovum.

The Society for the Study of Disease in Children.

A MEETING was held on Friday, April the 15th, at 5.30 p.m., at No. 11, Chandos Street, W., Dr. C. O. HAWTHORNE in the chair.

A Case of Congenital Proptosis and Meningocele on a boy of five years was shown by Dr. JAMES TAYLOR. The mental condition was defective; recently his eyesight had been failing, and nystagmus and optic atrophy were also present.

Mr. SYDNEY STEPHENSON said that in all the cases of steeple-skulled children which he had met with, there was also a condition of pallor of the optic discs, which seemed to be secondary to neuritis. He thought a mechanical factor was probably the cause of the neuritis, as well as of the proptosis and divergence of one eye, which were constant features of such cases.

A Case of Encephalitis, originating during measles, was shown by Dr. ANDERSON SMITH (introduced). The patient, a girl of five years, at the height of an attack of measles, developed cerebral symptoms, namely, vomiting, squinting, head retraction, photophobia, and unconsciousness. At the end of five days the acute symptoms subsided, but she was found to be aphasic, resented being touched, and wasted rapidly. There was neither optic neuritis nor ear trouble. A month later she was still aphasic, could not sit up in bed, moved her limbs in an ataxic manner, and appeared to have general cutaneous anaesthesia. There was slight rigidity of the limbs, ankle-clonus, and exaggeration of the knee-jerks. More recently there had been gradual improvement in the motor power, she could say a few words, the ankle-clonus had disappeared, and sensation was improving.

Dr. HAWTHORNE thought the evidence of meningitis was not clear, and suggested that the symptoms might have been due to some form of toxin. He recalled a somewhat similar condition in an adult after influenza.

Dr. FARQUHAR BUZZARD thought that all the symptoms could be attributed to a lesion of the cerebrum, without any involvement of the spinal cord, and that there had probably been encephalitis produced by the measles toxin. As the improvement had been so marked, there was reason to hope for a good ultimate result.

Dr. JAMES TAYLOR agreed as to the good prognosis, and as to toxæmia connected with the measles being the probable cause.

In reply to questions, Dr. ANDERSON SMITH said he had thought of the possibility of the rash and other symptoms being due to cerebro-spinal meningitis and had excluded that; further, another member of the family had measles at the same time.

Two Cases of Microphthalmos were shown by Mr. SYDNEY STEPHENSON, one slight in a boy of six years, and the other extreme in a girl of sixteen months. He pointed out that a few years ago the latter would have been called a case of anophthalmos, because no eye was visible on opening the lids, and it was only on deep palpation that a small pea-like body could be felt towards the back of each orbit. These small bodies in all probability represented rudimentary eyeballs, containing more or less immature nervous elements, and upon that ground he preferred to regard the case as one of microphthalmos.

Two Cases of Anæmia were shown by Dr. E. P. BAUMANN. The first was in an infant of ten months, who was obviously syphilitic, and had an enlarged spleen. Blood examination showed merely the existence of a severe secondary anæmia. He considered the whole of the symptoms as secondary to syphilis. The second case was a girl of one and a half years, without evidences of syphilis, but with an enlarged spleen. Blood examination showed a well-marked leucocytosis, and also a large number of nucleated red cells, a considerable proportion of which were megaloblasts. He was inclined to regard the case as an example of pernicious anæmia in infancy.

Dr. A. E. JONES agreed with the diagnosis of pernicious anæmia in the second case, as the large number of nucleated red corpuscles was very striking.

A Case of Dactylitis with Subcutaneous Nodules in an infant of sixteen months was shown by Dr. A. MORISON. He regarded the case as tuberculous.

The case was discussed by Mr. LOCKHART MUMMEY, who recommended general treatment; by Mr. R. C. DUN (Liverpool), who advised general treatment and the fixation of the hands in splints so as to secure immobility of the fingers; by Mr. L. BIDWELL, who had often found incision through the periosteum and scraping, and later on splinting, a means of shortening the duration of treatment; by Dr. H. SKELDING (Bedford), who thought that the best local treatment was by a splint; and by Mr. R. P. ROWLANDS, who suggested that the disease might be syphilitic, judging from the density of the shadow in the skiagram.

A Case of Tuberculous Nodule in the Ponto-medullary Tract was shown by Dr. S. VERE PEARSON. The patient was a boy two years old, who was suffering from weakness in and disinclination for walking, slight drowsiness, and squint in the left eye. There had been occasional retching and difficulty in walking. Definite right-limbed paresis had developed later.

Dr. Vere Pearson commented on the crossed paresis, and considered that there was a lesion of the ponto-medullary tract, probably a tuberculous growth.

Dr. HAWTHORNE referred to a case of basal tumour in a child, who developed third nerve paralysis, and who presented evidence of tubercle in other parts of the body. The tumour was found post mortem to be tuberculous.

Dr. FARQUHAR BUZZARD referred to the rarity of tuberculous tumours in this region, and to the fact that they were usually discovered accidentally after death, having produced no symptoms during life. He was inclined to regard the case as one of pontine tumour, probably gliomatous.

A Case of Paramyoclonus Multiplex in a boy of ten years was shown by Dr. C. O. HAWTHORNE. There were sudden, shock-like, clonic muscular contractions affecting both sides of the body at the same time. The bilateral and isochronous character of the contractions was well seen in the cremaster muscle. The muscles of the face, the trunk, and the thighs were also affected.

Dr. HAWTHORNE also showed (1) a case of opaque nerve fibres, and (2) a case with extreme changes in the fundus, following an injury.

The following papers were read :

A Case of Gonorrhœal Pyosalpinx in a girl of six years treated by removal of the tubes, by Mr. Leonard Bidwell.

A Case of Gonorrhœal Inflammation of the Uterine Appendages in a girl of three years, with spontaneous recovery, by Dr. George Carpenter.

A Case of Post-hemiplegic Chorea, petit mal, and Mental Irritability treated surgically, by Mr. R. C. Dun (Liverpool).

Two Cases of Strangulated Hernia in Infants under one month, treated by operation, by Mr. Leonard Bidwell.

A SPECIAL MEETING was held on Friday, May the 20th, at 5.30 p.m., at 11, Chandos Street, W., Mr. WATSON CHEYNE, C.B., F.R.S., in the chair.

A Case of Congenital Dilatation of the Colon in a boy six years old was shown by Dr. GEORGE CARPENTER. The child had suffered from chronic constipation since its birth, and its abdomen had increased in size from the time it was a year old. The child was ruddy looking, but thin, and with somewhat pinched features. The abdomen, which was very large and tympanitic, measured twenty-seven inches in circumference, and large coils of moving intestines were plainly visible under the abdominal walls. The case was shown to obtain an expression of opinion as to the advisability of surgical interference, if any, and if so as to what form it should take.

Mr. WATSON CHEYNE was in favour of simple colotomy.

Delayed Chloroform Poisoning.—Mr. HAROLD J. STILES (Edinburgh), and Dr. STUART McDONALD (Edinburgh) (introduced) contributed a paper on this subject. Mr. Stiles, in his introductory remarks on behalf of himself and Dr. McDonald, said although the occurrence of delayed

chloroform poisoning had long been recognised in Germany, Dr. Leonard Guthrie, a fellow member of the Society, was the first to direct attention to the subject in this country. His first paper, published in the 'Lancet,' vol. 1, 1894, was entitled "Some Fatal After-Effects of Chloroform in Children." In a second paper, published in the same journal, July the 4th, 1903, Guthrie brought forward further observations in support of his contention that the fatty changes met with in delayed chloroform poisoning are not due to the action of chloroform alone; he maintains that the liver is in an advanced state of fattiness previous to the administration of the chloroform, and that the latter, by diminishing oxidation, already deficient, determines the state of functional inadequacy which sets up an auto-intoxication due to the accumulation of ptomaines or toxins.

Mr. STILES then described the clinical history and pathological changes in two children who died, the one three days after operation for the radical cure of hernia, the other twenty-six hours after an osteotomy for knock-knee. The symptoms and post-mortem findings corresponded closely with those described by Thiem and Fischer, Bastianelli, Fraenkel, Guthrie, Ambrosius, Steinthal, Bandler, Marthen, Heintz, Salan and Wallace, Dörner, Cohn, and Foester. It was shown that death could not have resulted either from carbolic acid poisoning, from fat embolism, or from sepsis. In the osteotomy case the fat emboli in the lungs were only present in the smallest vessels, and were so scarce that death could not be attributed to them. It was interesting to note that some of the sub-lobular and hepatic veins contained a considerable amount of oil, for the most part in free droplets, but occasionally in the interior of what were evidently disintegrated liver cells. No fat was demonstrated in branches of the hepatic artery, nor could any be discovered on the aortic side of the circulation. It was evident, therefore, that the fat in the lungs was derived from that which had gained access into the hepatic veins from the disintegrated liver cells.

The possibility of sepsis was carefully considered. Lantern slides and microscopical specimens (obtained from a child who died from a gangrenous inflammation of the oesophagus following operation for perityphlitis) were demonstrated to show how closely the degenerated changes in the liver, kidneys, and heart resembled those which are said to be characteristic of delayed chloroform poisoning. In neither condition were there any inflammatory changes in the glomeruli. The fact was emphasized that the same degenerative changes are sometimes present in patients who have died after operations for septic conditions, especially of abdominal origin, as are found in patients who have died from delayed chloroform poisoning uncomplicated with sepsis. In cases in which a septic element exists the difficulty is to say how far the degenerative changes are due to bacterial toxæmia, and how far to an auto-intoxication determined by the chloroform. The question can only be settled by comparing the morbid changes found in the liver, kidneys and heart in patients who have died after operation (chloroform anaesthesia) from an acute infective surgical disease with those present in patients who have died from similar conditions without having undergone any operation, or who have been operated on under ether anaesthesia.

The hope was expressed that pathologists would inquire more closely into the nature and causation of the degenerative changes to be found in the above-mentioned organs in surgical cases.

Out of 3000 operations performed under chloroform in the in-patient department of the Royal Edinburgh Hospital for Sick Children during the past five years there was the strongest evidence to show that three deaths

(possibly four) were due to the after-effects of chloroform. Unfortunately the pathology and symptoms of delayed chloroform poisoning have, up to recently, been either overlooked or wrongly interpreted, so that the mortality cannot be estimated until the condition has become generally recognised by surgeons and pathologists. With one exception the cases recorded in this country have all occurred in children while under treatment either in the Paddington Green Children's Hospital, or in the Royal Edinburgh Hospital for Sick Children, these being two hospitals where special attention has been directed to the condition. In Germany, on the other hand, almost all the reported cases have been in adults, and the greater proportion of these have occurred after a somewhat severe operation for infective abdominal conditions, such as suppurative salpingitis, appendicitis, etc. The element of sepsis with which these cases are complicated render it difficult, in the present state of our knowledge, to say how far they help to solve the problem of delayed chloroform poisoning. If it could be shown that the critical condition (persistent vomiting of a more or less hæmorrhagic type; small, rapid, and often irregular pulse; extreme restlessness, collapse, etc.) in which we occasionally find patients forty-eight hours or so after operation is in any way brought about by degenerative changes set up by the chloroform, the question of substituting ether will have to be seriously considered even in the case of children. Unfortunately, however, the mortality in children from the effects of ether on the respiratory tract would probably be as great, if not greater, than that due to the after-action of chloroform.

Details were given of six out of fourteen experiments performed on rabbits to ascertain the effect of chloroform on the tissues. In Experiments 1 and 2, 2 c.c. of chloroform were injected into the subcutaneous tissue, while in Experiments 3 and 4, 3 c.c. and 4 c.c. of ether were injected respectively. Both the animals injected with chloroform died on the fourth day after the administration of the drug. The liver was extremely fatty, and to a less extent the kidneys and heart. There were numerous petechial hæmorrhages in the gastric mucosa, a point of considerable importance, since it has been shown that hæmorrhagic vomiting is one of the most important and constant symptoms of the delayed toxic action of chloroform. Both the animals injected with ether recovered, and the post-mortem examinations revealed no fatty degeneration or other abnormality. Two experiments were performed on rabbits with the object of determining the action of chloroform on the liver, the drug being administered by inhalation in the ordinary way. As control observations, and in order to determine the condition of the liver at the time of operation, the experiments were begun by excising a small piece of liver under ether anaesthesia. A week later the animal was deeply anaesthetised with chloroform in the usual way for twenty-five minutes. The animal recovered, and was killed forty-eight hours after the administration. The piece of liver removed at the first operation (ether anaesthesia) showed a few small oil globules here and there; many fields, however, were entirely free from fat. The same liver examined, post mortem, after chloroform anaesthesia showed an extensive fatty change in the intermediate and central zones of all the lobules, thus corresponding exactly with what was found in the two children who died from delayed chloroform poisoning. The kidneys showed distinct cloudy swelling of the convoluted tubules, and here and there a distinct fatty change. The heart was not fatty. The sixth experiment was conducted on the same lines as the above, and gave similar results.

In discussing the causation of delayed chloroform poisoning a case was

instanced which favoured the view held by Guthrie. It was that of a boy who died on the fourth day after the administration of chloroform for the purpose of examining a stiff knee-joint secondary to syphilitic disease of the lower end of the femur. It was observed that the liver was considerably enlarged before the anæsthetic was administered. No incision was made, nor was any attempt made to forcibly straighten the limb. The patient came well out of the anæsthesia, but was very sick the whole day. On the day following the vomited matter was distinctly coffee-ground, and this persisted until death. At first the patient was very restless, but subsequently he became more and more collapsed, and died in a semi-comatose condition. The liver and kidneys showed the same fatty change as occurred in the two cases of delayed chloroform poisoning above described. So long ago as 1860, Symonds, of Oxford, drew attention to the danger of chloroform in patients suffering from fatty liver.

It was not thought that Dr. Guthrie had brought forward sufficient evidence to show that the fatty change here described is the essential predisposing factor, and that the chloroform merely acts as the "last straw." It was thought much more probable that the fatty change was entirely due to the chloroform acting on a previously healthy liver; indeed, experimental evidence seemed to give strong support to this possibility. Moreover, while the changes in the liver are so striking it must not be forgotten that other organs give evidence of a general toxic poisoning, and it seems hardly justifiable, therefore, to attribute the fatal result to hepatic insufficiency. Fatal cases of delayed chloroform poisoning are undoubtedly very rare, and it would appear, therefore, that idiosyncrasy is the main factor in their causation just as it is in the irreducible minimum of deaths which occur during chloroform anæsthesia. As regards the treatment of delayed chloroform poisoning the authors entirely agree with Guthrie in strongly condemning the use of morphia. Rectal and subcutaneous injections of normal saline solution and, if necessary, intravenous injections must be employed. If the vomiting be copious the stomach should be washed out, and an endeavour should be made to get it to retain some calomel or grey powder. Cardiac stimulants must be used, but in moderation.

The CHAIRMAN (Mr. Watson Cheyne), in the name of the Society, thanked Mr. Stiles very much for the most admirable address which he had given them, and for calling attention to these peculiar cases. He had to confess, however, that he was still not quite convinced that the chloroform was the only causative factor in these cases, and that they must be looked on as after-effects of the administration of that anæsthetic. Although he had had two or three cases at Paddington Green Children's Hospital, Mr. Cheyne thought it very remarkable that he had never met with similar occurrences either at King's College Hospital or in private practice. The extremely short administration in some of the cases, for example, tenotomy, and the minute dose administered, made it very difficult to believe that the chloroform was the cause of the fatal result. He would await the publication of the paper and the possibility of studying the facts more carefully in detail with the greatest interest.

Dr. LEONARD GUTHRIE thought that the frequency of these fatalities following operations under chloroform upon children might be greater than was indicated by the number of cases recorded in this country. Ten years previously he had published in 'The Lancet' a series of ten cases, nine of which had happened at the Children's Hospital, Paddington Green. Since then, three more had occurred at the same institution. He doubted whether

such experience was unique. Possibly a search in the archives of other children's hospitals might reveal more cases of a similar nature. He did not believe that they were attributable to septic infection of operation wounds. Yet the symptoms, which resembled those of acute yellow atrophy of the liver, pointed to toxæmia of some kind. The view that fat embolism was the cause of death did not accord with the symptoms, pathological findings, and nature of the operations. The case against chloroform was that prolonged and repeated inhalation of that anæsthetic produced in animals profound fatty changes, not only in the liver but in the kidneys and other organs, and that such changes were almost constantly found in children dying in the manner described after operations under chloroform.

But on the other hand it was difficult to conceive that such extreme fatty changes could be induced by the small amounts of chloroform absorbed during a period of anæsthesia which in some cases did not exceed a quarter of an hour or twenty minutes. Hence he inclined to the view that a fatty condition of the liver was pre-existent at the time of operation in such cases, that chloroform by its deoxidising powers aggravated and intensified the fatty changes present, and thus rendered the liver incapable of dealing with toxins entering the portal system from the intestines. The result was that such toxins passed into the general circulation and could not be eliminated on account of the specific action of the chloroform on the kidneys. The rôle of the chloroform was therefore that of the "last straw." The existence of such fatty livers might be suspected though it could not be proved by the history of so-called "bilious attacks," characterised by vomiting, headache, epigastric pain, diarrhoea, or constipation, associated with the odour of acetone in the breath and urine.

When such a history was obtained, ether should be the anæsthetic used, as experiments on animals showed that ether possessed the power of inducing fatty changes to a far less extent than chloroform.

Dr. HEWITT (introduced) had never seen any cases at all comparable to these. He supported Dr. Guthrie's request for an inquiry, on account of the extreme importance of the subject to the profession. He wished to ask Mr. Stiles what method of giving the chloroform had been employed, because, although most improbable in these instances, he thought that sometimes acute infections obtained access to the body by chloroform inhalation. He suggested that one of the children's hospitals change its customary anæsthetic for one or two years to a mixture of chloroform and ether, in order to observe the results.

Mr. BURGHARD remarked that in one of Dr. Guthrie's cases at Paddington Green, on which he had operated, the notable thing was that death occurred after the *second* time of operating. The case was one of a very large nevus of the chest and arm, and the first operation, which had taken place several weeks before, was much the longer and more severe of the two; nevertheless the child recovered without a symptom of any sort referable to chloroform administration.

Dr. SILK (introduced) confessed that he had been very sceptical with regard to Dr. Guthrie's first paper ten years ago; he was now very astonished to find that it had been discovered in Edinburgh, of all places, that quite possibly chloroform might produce some ill-effects. He commented on the occurrence of the condition only in older children, in spite of the fact that chloroform was given to very large numbers of infants. It was strange also that no relation could be established between the size of the dose administered and the production of the condition. He considered that,

in Mr. Stiles' experiments, 2 c.c. subcutaneously was too big a dose for an animal weighing three pounds, and was not surprised to hear of their succumbing; that was not a fair test.

Mr. NOBLE (introduced) had administered two of the anaesthetics in Dr. Guthrie's cases. Perhaps these cases were commoner than was usually supposed. He now thought that two deaths he witnessed at Great Ormond Street, when house surgeon there, were probably due to this condition.

Mr. McCARDIE (Birmingham) (introduced) had never seen a case, although he remembered the death of a patient on the fourth day after similar symptoms; however, no autopsy took place. Froster had described two cases of parenchymatous degeneration due to chloroform administration, and showing slight albuminuria, vomiting, and collapse before death. The first case died on the second day, and the second, a girl of eleven, on the fourth. Fatty changes were found in the heart, liver, and kidneys. That author lays stress on the kidney lesions, especially on the fact that they were more advanced in the tubules than in the glomeruli, which was a diagnostic feature. He wondered whether such conditions were more apt to occur in lymphatic children, as they stood most adverse influences worse than other children. The moral was to always use ether in children.

Mr. STILES, in reply, said time did not permit of his going into the literature on the subject. What had struck him most about the German cases was that the majority were reported from gynaecological clinics, and occurred after operations for septic conditions within the abdomen. The possibility of a severe septic intoxication in these cases was so great that it was doubtful how far it was justifiable to attribute the deaths to delayed chloroform poisoning. He deprecated the practice of examining gynaecological cases under chloroform for diagnostic and demonstrative purposes, and then giving the drug again a day or two later for the operation. He advised that careful autopsies and microscopical examinations should be made in all cases in which there was any doubt as to whether the patient had died from sepsis or from delayed chloroform poisoning. It was important also to compare such cases with those in which death had occurred from septic disease without operation. He inclined to the belief that two factors were often at work, viz. a bacterial toxine and the chloroform.

In answer to Dr. Silk, he suggested that delayed chloroform poisoning might easily be overlooked in infants who had undergone minor operations such as circumcision, etc., because such cases were invariably treated as out-patients.

With respect to the experimental dose, he did not consider that the injection of 4 c.c. was excessive, although this amount was purposely employed to bring out the full action of the drug on the tissues.

Editorials.

THE CARE OF INFANTS IN WORKHOUSES.

OUR hope of lowering the infant mortality of the future lies chiefly in the diffusion of a few elementary principles of hygiene amongst

the poorer classes. We refer, of course, to such questions as the importance of breast feeding, the use of proper bottles, the non-contamination of milk, and more efficient ventilation. Children's hospitals are important centres for the diffusion of such knowledge, but they often do not reach the very poor, whilst, in any case, their field is a comparatively restricted one. The workhouse nurseries, which exist throughout the country, offer unique facilities for the inculcation of these fundamental and simple principles. We feel sure, after a perusal of the Dietary Order of 1900, that the Local Government Board had some idea of this possibility when they included in that order a special proviso to direct that "the medical officer" of the workhouse "shall give directions in writing as to the service of food to the infants."

We gather, however, from inquiries we have made in several quarters that the medical officer very rarely carries out these directions.

We are at a loss to understand why this is so, unless it be the fact that the average medical officer cares little as to how the young children in the workhouse are fed, and is wholly apathetic as to the effect of his remissness on the national welfare. This neglect of his duties is all the more deplorable when it is realised that a very large number of children and their mothers pass through the workhouse nurseries of the country every year, that they come from the residuum of our population, and that the majority of the children are suffering in one way or another from semi-starvation or diseases incidental to improper feeding.

Very rarely have the mothers, or even the officers who have charge of the nursery, any knowledge of how to feed infants properly.

We do not blame the lay officers for this want of knowledge, for the simple reason they have never been taught, but we cannot hold the medical officers guiltless. They legally are responsible, and they shirk a responsibility which should not require a legal direction to remind them.

So much for the capital question of infant feeding. We feel that in other directions also our workhouse nurseries neither obey the latest dictates of scientific hygiene, nor attempt to instruct the mothers who constitute such a large part of their floating popula-

tion. Does the ventilation of any one of these nurseries at all approach the standard necessary for health? Is any attempt made to show parents the danger of overlying? It is an open secret that in high quarters the cot system is not only not extolled, but even condemned. This is entirely out of harmony with all expert opinion on the subject. We need not here go into the old arguments as to whether the warmth of the mother can be given by artificial heat, or as to the dangers from the child breathing vitiated air under the bed-clothes, but that the risk of overlying is a very real one needs only a slight experience of coroners' courts to establish. We repeat that for any institution to deny the efficacy of the cot system is to prove itself out of date in modern hygiene.

The above charges are grave ones, but we fear that they are only too well founded. We consider that such questions of national importance should no longer be overlooked by those in authority, and we call for investigation into a matter that to us seems to require urgent reform.

THE NOMENCLATURE OF TUBERCLE.

WE wish to dwell shortly on this interesting subject. When the word "tubercle" was first commonly employed in medicine, in the decade 1820—1830, it was used simply in its literal meaning of a "little wart," and all derivatives of the word had a similar reference. When, however, the specificity of the commonest lesion in which tubercles were found—pulmonary consumption—was demonstrated, confusion was introduced into this nomenclature. For fifty years the word was used by some writers in its original meaning, by others in its acquired meaning; but as time went on the latter became more and more the accepted one.

At the present day the word "tubercle" refers in medicine to nothing but the specific infective process known as tuberculosis. Similar definition of meaning has not, however, yet been arrived at in certain derivatives of the word. Of late years the leading writers, perhaps influenced by a decision on the point by the Royal College of Physicians, have employed the word "tuberculous" as an adjective

designating "pertaining to the process tuberculosis." The older word "tubercular" has, then, no official recognition, and the question arises whether it should be discarded altogether or its meaning defined, perhaps in a new sense. It would be obviously wasteful to employ it as synonymous with "tuberculous," and this has, so far as we are aware, not been advocated, so that we are left with the above two alternatives. The second of these has been already utilised in a suggestion, emanating, we believe, from St. Bartholomew's Hospital, to the effect that we should use the word in its original sense of "pertaining to a little wart." In that case instances where this original meaning has still lingered on, as for example "tubercular syphilide," would be accepted as correct; one would also speak of leprosy as being a "tubercular" disease, though not a "tuberculous" one. This suggestion, if carried out, would give us a new word of some slight value; it would, however, be apt to lead to confusion in expression, for the reason that "tubercular" would be the only one of the many derivatives of the word "tubercle" artificially divorced from the harmony of usage which the other derivatives enjoy. On etymological grounds we have the high authority of Professor Skeats on our side when we condemn such a rendering as untenable.

We think that consideration of the usual grounds on which the termination "ar" is employed should guide us in deciding the question. First let us take as an analogy any word, say "popular," which has a similar termination. We see at once that the word "popular" means "pertaining to the populace," as in the terms, "a popular demonstration," "a popular opinion," while "populous" means "populace containing," as in the term a "populous city." Proceeding on these lines we propose that "tubercular" mean "pertaining to tubercle"—the word tubercle being used in its accepted and unequivocal sense—and that "tuberculous" have a more exact meaning as signifying "containing tubercle." We would thus speak of a tubercular patient and tubercular diathesis, but of a tuberculous lung (provided that the specificity of the lesion had been demonstrated, as by discovery of the bacillus).

Excerpta Puerilia.

Eugenics.—At the second meeting of the Sociological Society held on May the 16th, with Professor Karl Pearson in the chair, Professor Galton read an interesting paper on this subject. A discussion took place afterwards, in which several eminent authorities took part, either personally or by correspondence. There was complete agreement as to both the importance of the question and as to ignorance of the public in regard to it. Even if far-reaching conclusions were to be reached by scientists, they could have no practical results until public opinion had been gradually educated. The obvious teachers are the great body of the medical profession, and it seems to us that no headway will be made, either in that or any other subject bearing on heredity, until our profession takes more interest in what they now contemptuously dismiss as a question of scientific and therefore theoretical interest only.

Meals before Lessons.—Islington is demanding that the local authorities should be given power to feed underfed school children. Something of the kind has been urged by certain municipalities before, but not being directly interested, as they are now, in the management of the schools, little has come of their representations. This brings some of us back to our early school days—the getting up in the morning at 6.30 a.m., and the prospect of the hour's preparation of lessons before breakfast. We have a lively recollection of our youthful gastric experiences, and of the difficulty in concentrating the attention on intellectual matters not always of interest to the youthful mind, with gnawing vitals and cold feet. For some of these poor Board School mites it must be difficult for them to remember when they had the last square meal, and the hopelessness of teaching them under such adverse and brutal conditions must be apparent to all. How or by whom these children should be fed are matters which does not concern us; what we are interested in advocating is that the child should be fed before it is taught. The authorities can well be left to arrange the details. Islington is by no means a pioneer in such matters. The East Lambeth Dinner Association, supported by voluntary contributions, for now some fifteen years has presided over the welfare of some 45,000 children in Walworth, Newington and Camberwell occupying some eighty schools. The association has also been aided by the London School Dinners

Association, a central body which assists all other similar local London societies. When the School Board was in existence the recipients of the charity were selected by a committee consisting of a teacher, a manager, and a visitor. With the dissolution of the London School Board, the work has to be revised by the County Council and the Borough Councils, hence the well-timed action of Islington in the matter, which we hope to see taken up by other local authorities.

Clitheroe school children to be medically examined.—Clitheroe, a Lancashire town possessing a population of some 12,000 inhabitants, is to be congratulated on its progressive policy. It has been decided, according to the 'Nottingham Guardian,' and by the casting vote of the Mayor, that the eyes and teeth and hair of the school children shall be examined once a quarter by the borough medical officer, who is to visit the schools for the purpose. But why omit other regions equally vulnerable? The condition of the posterior nares is not unimportant, especially in relation to tuberculous glands, not to mention other things, nor should the ears be neglected. The feet should certainly not be overlooked at these inspections. How often does neglect in this respect lead to suffering and disease? Boots too small for the feet, with consequent distortion of the joints, and boots that are worse than no protection at all to the feet by reason of their unsoundness. These are matters which should also compel the attention of the Councillors, and while they are in the mood to give their commands they would be well advised to have a thorough medical examination made of the scholars under their charge, both physical and psychical. The ability to conduct such examinations as the Clitheroe Councillors have determined upon with success requires very special training, and implies no small amount of skill, erudition, and technique, not to mention expenditure of time, such an amount in fact that even a Clitheroe Town Councillor might feel proud were he the possessor of such accomplishments as would pilot him safely through such an ordeal. Have the Councillors, who appear to be fairly intelligent and certainly well-meaning people by the action they are reported to have taken in respect to this matter, an idea of the length of time it would take to conduct such examinations if even moderately good results are to be looked for? Have they a notion of the training that is required to undertake them? Apparently not, for we find that the remuneration offered for these by no means light duties is the princely sum of £15 per annum. Nor can the medical profession be held altogether free from blame for such a lamentable state of affairs as is evidenced by the above municipal

generosity. It has been the custom for many years past for medical men to give their services to the public on the slightest provocation, often indeed without any provocation. As the public only values that for which it is accustomed to pay, it has come about that, in return for all this indiscriminate medical charity, when the time arrives for the public to show its appreciation for services voluntarily bestowed, a wholly inadequate remuneration is offered for the discharge of important public duties, the importance of which the public would not have realised had it not been for the teaching of medical experts. If the work is to be conscientiously performed by the borough medical officer it would necessarily entail a considerable sacrifice of time and consultations with experts in such matters. On the other hand, if the officer in question is to view his duties from the standpoint of the amount of the remuneration offered, it would result in a quarterly march past of the children of the various schools, notice only being taken of the more glaring abnormalities, defects which could not be overlooked by the man in the street. It would be advisable for the town councillors of Clitheroe to reconsider the matter of remuneration, or cease to pose as pioneers of school hygiene.

Physical training in the primary schools.—A report has recently been issued upon the suitability of the model course of physical training used by the Board of Education. The Committee has arrived at the conclusion that the "model course" is not suitable for use in schools. The so-called "Swedish exercises" have been more or less widely taught in England during recent years, and the sets of exercises recommended by the Committee seem to be formed on the Swedish pattern. It is recommended that drill-sergeants should no longer be employed as conductors of the physical education of girls, but that their place should be taken by "women of good education who have undergone a systematic course of preparation for becoming instructors in physical exercises." Anyone who has had an opportunity of seeing a class of girls going through their exercises under the direction of a lady instructor will fully appreciate the wisdom of this decision. Not only are the exercises designed to bring into play every muscle of the body and correct defects of deportment, but the lady instructors take an intelligent interest in their work, which is indeed the work to which they have decided to devote their lives. The Committee, however, has not limited its report to the subject of physical exercises which bear chiefly upon muscular development and its influence on the figure. It is directed that breathing exercises

should also be practised, and that it is not increase of chest capacity which should be mainly aimed at, but increase of power both to expand and empty the chest. In connection with the value of the various forms of exercise it is pointed out that since exercise of vigorous character increases the demand for nutrition, some badly-fed children are not likely to profit by them. There are also children who from some constitutional weakness might even suffer injury. In connection with the subject of the presence of defective children and the teachers' recognition of deviation from normal standards the following wise remarks are made:—"That suitable instruction in the laws of health and in the outward signs of physical and mental weakness should receive a much more prominent place in the general scheme for the training of teachers than appears to have been the case hitherto. For this purpose no mere bookwork instruction such as may be necessary for passing written examinations in physiology and hygiene is sufficient. The instruction should include a certain amount of, so to speak, clinical experience. The students should be made acquainted practically with the indications of normal health and normal physique, and taught how to recognise probable deviations from this standard. They should be able to recognise such signs of defective nutrition and such defects of sight, hearing, and breathing as require medical attention. They should also be familiar with the signs of fatigue, physical or mental, which to the experienced teacher are the gauge on which he keeps his eye in regulating the work of a class."

The provincial meeting of the Society for the Study of Disease in Children.—The provincial meeting of the Society will be held at Bristol on Saturday, June the 18th. The meeting will take place, under the presidency of Dr. Theodore Fisher, at 4 p.m. in the Medical Library of University College, which is close to the Children's Hospital. Prior to the meeting, from 2.30 to 3.30 p.m., cases will be shown in the wards of the hospital by the medical and surgical staff. Those desirous of reading papers or showing cases or specimens at the meeting should communicate with Dr. George Carpenter. This privilege is not confined to members of the Society, but medical men, if introduced by members, can read papers, exhibit cases, and take part in the discussions at the meeting if due notice be given ten days beforehand. The dinner will be served at the Clifton Down Hotel at 7.30 p.m. for members and their friends. Those desirous of attending the dinner should communicate with Dr. Theodore Fisher, Harley Lodge, Clifton Down.

Abstracts from Current Literature.

Surgery.

Torsion of the spermatic cord and hæmorrhagic infarct of the testicle.—Lapointe, in a monograph on this subject (Paris, 1904), reviews thirty-seven cases recorded in the literature, inclusive of one which he had under his own care. In this case the symptoms closely resembled those of orchio-epididymitis, only the absence of any inflammatory condition elsewhere in the genital apparatus and the sudden onset pointed to the true nature of the lesion. Three of the collected cases were examples of the less common type in which the spermatic cord and its coverings are twisted above the level of the tunica vaginalis. This form is called by the author "bistournage accidentel," the lesion being the same as that which veterinary surgeons designedly produce in animals. In two of the cases the testicle was in the inguinal region, in the third it was in the normal scrotal position. The condition which predisposes to the usual type, where the torsion is of the testis within the tunica vaginalis, is an abnormal formation of the mesorchium testis. The term mesorchium is, however, not a good one, for there is no true mesentery in the sense of a double form of serosa, the testicle being without a peritoneal covering at its hinder part. The torsion takes place between the visceral and the parietal attachments; the length of this uncovered area varies from 2 mm. to 8 cm. Torsion frequently depends upon incomplete development of the mesotestis, and is thus usually associated with imperfect descent and ectopia. With regard to the exciting cause of the torsion, in six of the thirty-four cases there was no history of strain or trauma: in these the writer believes contractions of the cremaster must be held responsible. The causes in the rest were lifting some heavy weight, sneezing, instrumentation of the bladder, straining at stool, jumping, falling; in one case only a local contusion. The lesion may be produced by a single half-turn of the testis, the vas deferens being twisted on the vessels. Effusion into the serosa usually occurs, but not always; the characteristic lesion is a hæmorrhagic infarct of the testis, a condition which very seldom occurs apart from torsion, but five such cases are recorded in the literature. The infarct becomes encapsuled and atrophies if it remains aseptic, but if infection occurs gangrene and sloughing follows; such infection may occur from the skin, from a neighbouring hernia, or by the blood-channels.

In regard to diagnosis, the point of most importance is the sudden onset of the testicular pain and its great severity; the symptoms may resolve by spontaneous correction of the torsion, and some patients who have had several attacks have learnt to replace the organ themselves. If the testicle is situated in the inguinal region, this will give support to the diagnosis. Therapeutically one of three measures may be undertaken: reposition by manipulation, reposition with operation, and castration. The first gives no guarantee against recurrence, and should be replaced by the exposure of the testis by operation and fixation, closing the tunica vaginalis without drainage. Castration is indicated if the testis is infected and situated in the inguinal region: hæmorrhagic infarct alone is not sufficient cause for castration.

KEITH MONSARRAT (Liverpool).

Jacksonian epilepsy in a child of two relieved by operation (*Brit. Med. Journ.*, May 14).—**H. Muir Evans.** The patient was a girl, aged two years and eight months. The fits were of two kinds—one, a sudden dropping forward of the head, and the other a severe convulsive movement involving the left side of the face, the left arm, and leg. Between the fits there was paresis of the left side of the face not involving the eye, and after a severe fit the paresis extended to the left arm. There was no optic neuritis. The fits first made their appearance when the child was seventeen months old. After the first fit the child was paralysed down the left side of the body. There was no history of any fall or injury, and no history of syphilis or hereditary tendency to epilepsy. The fits gradually increased in frequency, with occasional quiescent periods up to the time of operation. Medical treatment was quite ineffectual in controlling the fits. At the operation the skull was trephined over the ascending frontal convolution. On removing the bone the dura mater was seen to bulge into the wound; when this was incised, a cyst containing clear fluid and which closely resembled a mucous polypus was seen. After evacuating the cyst, the dura mater was sewn up and the wound closed. The fits entirely stopped after the operation, and the child appears to have made a complete recovery.

P. LOCKHART MUMMERY.

Congenital lymphatic cyst of the axilla (*Deut. Aerzte Ztg.*, April, 1, 1904).—**Max Schuller** records a case in an infant aged 2 days, who was born with a tumour in his right axilla. The tumour was of the size of a fist. The skin over it was healthy. The tumour as a whole was firm and resistant, but at some points the wall was soft and fluctuating. No pulsation was noted, and pressure produced no alterations in volume. A diagnosis of lymphatic cyst was made. The cyst was aspirated, and 150 gr. of clear, amber-coloured, alkaline fluid removed, which contained a large quantity of albumen. The cyst rapidly refilled. After being aspirated on several occasions it was finally incised. It was now found to be a multiloculated cyst with smooth, thick walls from which small septa projected. The bases of these were thickened, and felt like moderately firm gland tissue. There was no evidence of tuberculous or gummatous infiltration, nor of the presence of a new growth. The sac was washed out with sublimate solution and packed with guaiacol-iodoform-glycerine gauze. Complete recovery soon took place.

The fluid drawn off at first aspiration resembled closely the fluid which is obtained from the large so-called "hygromas" which are sometimes found in the neck. These cysts, however, have their origin in lymphatic vessels, whereas the cyst in the case above described was in relation to a lymph gland, or more probably a mass of glands. Cyst formation and hyperplasia must have occurred hand in hand, hence the large size of the cyst and the character of its walls. The rapid resolution which occurred after the operation negatives the possibility of a chronic inflammatory (tuberculous or gummatous) origin for the cyst, and still more of its origin in a sarcomatous or lymphomatous growth.

The writer is unable to offer a feasible explanation of the occurrence of the cyst. He believes that this curious condition must have existed from the moment of origination of the glands themselves. There may even have been some local source of irritation to produce the change. The suggestion of mechanical changes *in utero* cannot be maintained.

E. P. BAUMANN.

Infective osteomyelitis; its pathology and treatment (*Jour. Amer. Med. Assoc., February 13, 1904*).—**Nichols** describes a method of treating infective osteomyelitis which has for its object the shortening of the process of repair and the avoidance of sequestrum formation. In acute osteomyelitis he drains the lesion by trephining and joining the trephine holes with the chisel, but does not curette the central cavity, as he considers that unnecessary damage is done to the spongiosa thereby. Some weeks later—about eight in acute cases—he performs a subperiosteal resection of the affected diaphysis. The periosteum at this time has commenced the process of new bone formation, as can be easily demonstrated with a needle. The soft parts of periosteum are incised over the full extent of the affected part of the diaphysis, the periosteum is stripped with the raspator, and the shaft is sawn or cut near the epiphysis, or wherever it may be necessary. After removing the shaft, the surfaces of the periosteum are disinfected with 95 per cent. carbolic acid, which is allowed to act for two to three minutes, and then washed off with alcohol. The surfaces of periosteum are then carefully brought into apposition with sutures and the soft parts united, drainage being provided for at several points. To avoid loculi where fluid might collect the extremities of the bone left may be levelled off; the greatest care must be taken not to encroach on the epiphyseal line. This is the procedure when the bone operated on is supported by another, as the tibia is supported by the fibula. In other cases it is necessary to wait longer, until the development of the new periosteal bone has sufficiently progressed to retain the proper form; about sixteen weeks are usually required for this. The operation is similar to the last, but it is necessary to remove the affected shaft piecemeal. In old-standing cases, when a loose sequestrum is present, the periosteum of the case is similarly peeled off and afterwards sutured. In such cases the medulla is filled with necrotic bone, which must be chiselled away, otherwise pseudarthroses may form and the process of healing be very prolonged. The writer demonstrates a number of cases, which appear to show that both functionally and anatomically very good results are obtainable by this method.

KEITH MONSARRAT (Liverpool).

Topographical anatomy of the crypts of hypertrophied tonsils (*Journal de Médecine de Paris, March 13, 1904, p. 110*).—**A. Courtade** contributes an important article on this subject. He first reviews our present knowledge of it, and quotes the various text-books. He then gives the result of his careful investigations in children with the methods he has employed. He concludes that:—The number of crypts is higher than usually stated; their direction is not vague, for, if prolonged, they would all meet at a common centre situated external to the tonsil and at the level of its middle; the large orifices seen on the internal aspect of the tonsil represent the common openings of several crypts, which are often very shallow; the crypts are as numerous in the two extremities of the tonsil, where one rarely looks for them, as in the centre, and are deeper in the extremities; the deepest crypts most often have the smallest openings. The clinical bearings of the work done are considered in detail.

A. ERNEST JONES.

The necessity for supplementary measures after the removal of adenoids (*Archives of Pediatrics, April, 1904*).—**Percy Fridenberg** draws attention to the great importance of the after-treatment in cases of adenoids if a favourable result is to be expected from the operation, and if a

recurrence of the adenoids is to be prevented with any degree of certainty. Special attention should be paid after the operation to teaching the child nasal breathing. The use of respirators and other means to prevent mouth breathing at night, and regular respiratory exercises are also advocated. Another detail which he considers important, is the careful correction of any malformation of the teeth or alveolar arch. Such malformations are frequently present, and if the facial expression is to be materially improved it is important that they should be corrected. P. LOCKHART MUMMEY.

Lip-tie (*Annals of Surgery*, March, 1904). **Frederick Griffith** describes a condition of the lips similar to that which is known as tongue-tie, to which he gives the name of lip-tie. He describes the case of an infant in whom this condition was well marked in the upper lip. The under surface of the upper lip was adherent in the middle line to the gum by a fold of tissue which was continuous with the mucous membrane of the mouth. This band of tissue was about an eighth of an inch thick and formed a frenum to the upper lip. When the child opened his mouth the upper lip was rolled inwards, causing a peculiar expression of the face. Treatment consisted of snipping the band with blunt pointed scissors. He points out that this condition may also occur in the lower lip. P. LOCKHART MUMMEY.

Congenital elevation of the scapula (*Sbornik Klinický*, 1904, p. 73). —**Maydl**, in relating two cases of this deformity, discussed the etiology and treatment of the condition. The first case was a girl aged 13, who presented the deformity on the left side in its typical form as described by Sprengel: Maydl found that from the vertebral border of the scapula a stout bony process extended to the cervical vertebral column, and that this process was responsible for the limitations of movement of the left arm. A skiagram confirmed this observation. The operation which followed showed that a bony process, embedded in the muscles, extended from the fourth cervical vertebra, and by means of a cartilaginous peripheral extremity was attached to a bony outgrowth from the inner border of the scapula. The whole process was extirpated, and in doing so the vertebral canal was opened and the dura was injured. The patient made a good recovery, and left the hospital a month later, when the movements of the arm were entirely normal in range. The second case was that of a child aged 10; the deformity was also left-sided and identical with that discovered in the first; the bony process was here again removed, and the movements of the arm restored to their normal limits. Maydl considers that this bony process is the true cause of this deformity, and that it is probably always present, though in some cases it may be difficult of detection; probably in some cases it is only in part ossified or entirely cartilaginous. The point of articulation with the scapula was on the inner border at the level of the inner extremity of the spine, or it may be slightly above or below this. The elevated position of the scapula present in these cases is the normal situation at the end of fetal existence; after birth the bone descends somewhat; the presence of an ossified process, as in these cases, interferes with this descent, and limits the movements of the scapula. Extirpation of the process is the proper treatment. KEITH MONSARRAT (Liverpool).

Appendicitis in children (*Med. Rec.*, New York, April 30). — **John W. Brannan** in a paper on this subject advocates prompt surgical treatment in cases of appendicitis in young children. He thinks that the

diagnosis of the condition of the appendix in children is very uncertain, and that more harm is done by delaying operation than by prompt surgical interference. He puts forward the view that the present high death-rate of appendicitis in children, which he gives as 25 per cent., is largely due to operation being postponed too long.

P. LOCKHART MUMMERY.

Medicine.

Serum therapy and scarlatinal streptococci ('*Soc. de Biologie*, May 14, 1904; '*La Presse Médicale*,' 1904, p. 320).—**Dopter** gives the results of his researches. He finds that the serum of scarlatina patients can agglutinate the streptococci not only of scarlet fever, but also of septicæmia, erysipelas, etc. Again, the serum of patients suffering from streptococcic angina, erysipelas, etc., can agglutinate the streptococci of scarlet fever. These facts make him reject the specificity of the latter streptococci, and he concludes that they are only a secondary infection in scarlet fever.

A. ERNEST JONES.

On the nature of some forms of continued fever in infants ('*Riv. di Clin. Ped.*,' November, 1903).—**G. Mya**, in order to explain lengthy febrile attacks during infancy, lays stress on the hyper-thermophilia which is a special characteristic of early age, and is especially marked in subjects of inherited arthritic, syphilitic, or tuberculous diathesis. Attention must be given to latent febrile causes peculiar to infancy, such as infection of the bladder by bacillus coli and a permanent infective state of the pharyngeal lymphatics. A useful rule is to rid oneself of the inveterated tendency to attribute to fevers of unknown nature a gastro-intestinal origin, bearing in mind that in infancy the symptoms of alimentary infection and intoxication are usually very evident fairly early, although they may be uncertain at the commencement of the illness. The most frequent cause of febrile attacks without distinctive symptoms, for which it is impossible to find any well-marked cause, is latent tuberculosis, which is very frequent in children, and is as often capable of being arrested when suspected in time. Obsolete tuberculous foci, which are found at autopsies of adults, have often had a corresponding febrile period during their phase of development and subsequent arrest, and the most fatal error that can be committed in similar cases is to persistently diagnose an intestinal affection, and to enforce an unsuitable diet, which keeps up a state of relative inanition and facilitates the attacks of the tubercle bacillus. In any obscure case of fever in infancy every method of research should be undertaken to investigate the cause, and having excluded all gastro-intestinal infection and the possibility of typhoid, of dysentery, gastritis and enteritis of pyogenic origin, a nutritious diet should be prescribed, notwithstanding the fever, as being the best means to counteract the perils of a latent tuberculosis.

VINCENT DICKINSON.

A case of spleno-pneumonia—Grancher's disease—in a child of three years ('*La Péd.*,' October, 1903).—**N. Fedele** describes a case of spleno-pneumonia—Grancher's disease—in a child of three years. The pathology of this affection is not known; it is a disease of gradual origin attacking adults or infants, preferably males, and the left lung, always terminating favourably, and following influenza, albuminuria and tuber-

culosis. In this case there was slight dyspnoea, troublesome but not violent cough, slight fever, impaired movement of left side, abolition of vocal fremitus, no difference of volume of the two sides, posteriorly complete dulness on left side from base to scapular angle and in front as high as clavicle. Traube's semilunar space normal. Complete absence of respiratory murmur in left thorax and slight egophony; no tubular breathing. Expectoration scanty, viscid, yellowish, containing Fränkel's pneumococcus. Improvement began on fifteenth day—fever ceased by twentieth, the lung eventually becoming completely pervious to air. This rare disease was first described by Grancher in 1883 and called spleno-pneumonia because the lung assumed the consistence of the spleen and is not to be confused with simple or broncho-pneumonia; it is essentially an albuminous phlegmasia of the pulmonary parenchyma, of protracted course, and which simulates the physical signs of pleuritic effusion, but it is distinguished by the persistence of Traube's space, absence of sternal displacement, absence of thoracic enlargement, and absence of displacement of abdominal viscera.

VINCENT DICKINSON.

School life and infectious disease (*Canad. Journ. of Med. and Surgery*, March, 1904).—**Charles Sheard** read a paper on this subject at a hygienic congress at Toronto. He is sufficiently radical in his proposals. "The mouth toy must be banished from the school; space and air and sunshine provided for the child in the school room; the teacher must be instructed and educated up to the point of recognising the indication of contagion in children; and the school children must be inspected by a competent medical inspector whenever contagious disease appears amongst the scholars." Apparently they have been able to take very thorough measures in connection with school children. "In Toronto, I am happy to say that, with the co-operation of the School Board, we have in the past been able to maintain the position that no child of a family wherein there has been contagious disease can be permitted to return to school without a certificate authorised and signed by the health officer. The ordinary contagious disease inspector has furthermore instructions to report instantly to the principal of the school where the child has attended, and must ascertain for himself that no members of the infected family are in attendance at school, and if such children are found so to be to remove them, and it is almost a daily experience that such supervision and constant watching is necessary." That this power of the health officer is not appreciated by the general practitioner is evident from the correspondence columns of the same journal, and it seems only reasonable that the physician who has attended the child in the illness should be recognised as the proper authority to decide when the patient is free from infection. As regards the proposal to educate teachers "to the point of recognising the indication of contagion in children," we should regard such teachers not as beginners in medicine but as masters in the art.

G. A. SUTHERLAND.

Perforating gastric ulcer in a young child (*Reports of The Society for the Study of Diseases in Children*, Vol. I, p. 143).—**J. Porter Parkinson** exhibited before this Society a specimen of a perforating acute gastric ulcer in a male child, aged 2 years and 2 months. He narrates that the child had suffered from gastric symptoms, vomiting, and slight fever for ten days, when suddenly there was hæmatemesis, followed by typical symptoms of acute peritonitis. The child died in sixty hours from the onset of the

acute symptoms. At the post-mortem examination a punched-out ulcer, with slightly thickened edges, and a perforation a little larger than a pin's head at its base, was seen near the centre of the posterior wall of the stomach. Another small ulcer was also present, close to the one that had perforated. The peritoneal cavity held about a pint of turbid fluid containing flakes of lymph. No trace of tubercle, which is the usual cause of gastric ulceration in children, could be found. Dr. Parkinson pointed out the rarity of the condition in children, and quoted Dr. Fenwick, who states that in all the records of the London Hospital there are only three cases reported, and in each case the gastric ulceration was obviously secondary to some other disease.

JAMES E. H. SAWYER.

Spasm of the pylorus in infants (*Soc. d'Obstetrique, de Gynécologie et de Pédiatrie*, May 10, 1904).—**Mery** and **Guillemot** report three cases of marked gastric intolerance, with repeated vomiting, obstinate constipation, and alimentary stasis verified by stomach lavage. No treatment was of any avail until the children were put to the breast, either of the mother or of a wet-nurse. They attributed the symptoms to a spasm of the pylorus. In the discussion that followed considerable scepticism was expressed as to the frequency in England of the disease, called congenital hypertrophic stenosis of the pylorus. Lucas-Championnière, among others, said that spasm of the pylorus was often seen clinically, but that operation was unnecessary, as the condition yielded to medical treatment.

A. ERNEST JONES.

The treatment of new-born infants, children of syphilitics, though with no apparent syphilis (*Soc. Obst. de France*, April 8, 1904; *La Presse Médicale*, 1904, p. 307).—**Keim** related the history of two children of a syphilitic man. They showed no signs of syphilis, but suffered from diarrhoea, vomiting, and loss of weight. This resisted ordinary treatment, but yielded to mercury. The author concludes that congenital syphilis, just as acquired, may be so attenuated as to show none of its typical manifestations, whilst yet producing severe symptoms, such as the above, which may even be fatal.

THEODORE FISHER (Bristol).

On the "sublingual production"—Riga's or Fede's disease (*La Pédiat.*, January, 1904).—**N. Fedele** describes two cases.

Case 1, aged nine months, suckled, but after fourth month was given pap and unsuitable food, hence fever and vomiting and other signs of intestinal disturbance. Two lower central incisors cut at eight months, and shortly afterwards a swelling appeared under the tongue where the frenulum crosses the crest of the caruncle, the size of a large pea, pearly grey in colour, so that the infant constantly held its tongue out and dribbled saliva. No history of pertussis. After an appropriate diet and calomel and salol powders the general health improved, but the swelling remained, although causticked with pure carbolic acid and nitrate of silver; finally, it was excised and chromic acid applied, when after several months a cure resulted.

Case 2, aged eleven months; a similar history of injudicious feeding, two lower median incisors cut at seven months. The child had had whooping cough. After a month, although the general health improved, as the swelling remained, the incisors were removed, after which it disappeared as if by magic.

The author discusses the two main theories of causation, the infective and

the mechanical, and its relation to pertussis, enteritis, marasmus, and difficult suction, and agrees with Fede that the "sublingual production" is a papilloma and is dependent on mechanical conditions and usually traumatic irritation from the two lower central incisors. Even in malignant cases it has the same origin and cannot be regarded in the severe infective form as a manifestation of the infection which is rather of intestinal origin, and of which it is simply an accidental complication. VINCENT DICKINSON.

Suggestion during natural sleep (*Société d'Hypnologie et de Psychologie*, October 20, 1903).—**Wiazemsky** (of Saratow) has used Paul Farez's method of suggestion during natural sleep in the case of patients refractory to the more usual hypnotic procedures. He describes the cure of many troubles, such as nervous crises with loss of consciousness, paroxysms of motiveless terror, etc., in a hysterio-epileptic. He has had a large experience of traumatic neuroses thus treated, in his capacity of medical officer to a Russian railway, and strongly recommends the method.

A. ERNEST JONES.

Respiratory spasm (*Brit. Med. Journ.*, January 16, 1904).—**Robert Fullerton** narrates a case of respiratory spasm followed by cessation of breathing in a recently born child. An apparently healthy infant, three days old, became cyanosed and ceased breathing. Artificial respiration was required to keep him alive as slowing and failure of the cardiac action also supervened. Recurrent attacks of this nature took place, lasting from fifteen to thirty minutes, occurring sometimes during sleep and sometimes when the child was awake. Laryngeal stridor was present at times. Temporary improvement followed the inhalation of oxygen, and the child seemed perfectly well between the attacks, but then recurrence necessitated tracheotomy, which was performed without difficulty. Six and a half days later the tube was successfully removed, after several preliminary attempts, which had led to a renewal of the spasm, and during the following six months there had been no recurrence of the symptoms. The exact condition present in this case is difficult to determine. Dr. Fullerton observes that the attacks differed from those of laryngismus stridulus, in being free from convulsions or facial spasms, in being prolonged in character, and in following each other in rapid succession without any apparent cause. The attacks were in some respects similar to those described under the title of "infantile respiratory spasm," or "congenital laryngeal stridor." The conclusion of the writer is that there was some powerful stimulus, or a peculiarly hyper-sensitive nervous organisation, or a combination of both present in this case.

G. A. SUTHERLAND.

Double, partial, alternating paralysis in a child of eight months, due to basal tuberculous masses (*Société de Neurologie*, December 3, 1903).—**Lenoble** and **Anbineau** (of Brest) report the following unusual combination of paralyses in an infant 8 months old. A supranuclear paralysis of the facial nerve was present on the right side, combined with a left ophthalmoplegia. The ophthalmoplegia consisted in a non-action of the internal and inferior recti, possibly also of the superior rectus, in the left eye, with divergent strabismus, and no other ocular signs. In addition there was a paresis of the limbs on the *left* side. Post mortem was found a caseating tuberculous mass in the region of the left upper half of the pons, encroaching slightly on the cerebral peduncles, and another mass occupying

the right half of the lower part of the pons. This latter lesion was pushed aside without destroying the nervous matter, and, the authors consider, was only evident clinically in the paresis of the limbs. A. ERNEST JONES.

A case of pancreatic infantilism (*The Scottish Med. and Surg. Journal*, April, 1904).—**Byrom Bramwell** records a remarkable case of infantilism due to defective pancreatic secretion, and improved by the administration of pancreatic extract. The patient at the age of eighteen did not look more than eleven years of age; the bodily development had apparently ceased at the latter age; the sexual organs were in an infantile condition; the mental condition was good; there was chronic diarrhoea, and the abdomen was swollen and tympanitic. Dr. David Young was able to determine that the pancreatic secretion was defective or absent by the following tests: (1) The stools contained a considerable quantity of undigested fat, which was much diminished after the administration of pancreatic extract; (2) when the patient was taking a milk diet the amount of phosphoric acid in the urine was greatly below the normal, and was increased by taking pancreatic extract; (3) by Professor Sahli's test. This test consists in the administration of capsules containing iodoform surrounded by a glucoid substance, which is insoluble in the gastric and intestinal secretions, but which is soluble in the pancreatic secretion. If the pancreatic secretion is active the glucoid wall of the capsule is dissolved and the iodoform is set free; iodine in the form of iodides and iodates can then be demonstrated in the saliva by testing with chloroform and nitric acid; the nitric acid sets free the iodine, which gives a pink colour to the chloroform. In this case, after the administration of a test capsule, iodine could not be detected in the saliva, but the capsule was passed undigested.

Treatment by means of a glycerine extract of pancreas was begun, and the result had been remarkable improvement, both as regards the diarrhoea and the bodily development and growth. The patient had grown in two years 5½ inches, and had increased 1 st. 8 lbs. in weight; the diarrhoea had ceased; there had been a growth of pubic hair, and the penis and testicles had developed. Dr. Bramwell considers that the condition present must be considered a distinct clinical entity—a new disease which has not hitherto been recognised. The results of treatment seem to show how the disease can be cured. He had carefully excluded all the other causes of infantilism, such as cretinism, etc. G. A. SUTHERLAND.

Case of juvenile tabes (*Société de Neurologie, December 3, 1903*).—**Camus** and **Chiray** showed a girl, aged 22, who had suffered for six years with gastric crises. The crises were extremely violent, and reduced the patient for some hours to an almost desperate condition. There was no other evidence of stomach disease, and no stigmata of hysteria; the general health was excellent. Argyll-Robertson's sign was present early in the case, but disappeared later. Other permanent signs of tabes were, however, present, such as total abolition of all the tendon reflexes and root anaesthesia, limited to the distribution of the eighth cervical and first dorsal, especially in the left side.

There was no evidence of acquired syphilis present, whilst, on the other hand, the father was unquestionably syphilitic and had died of general paralysis; the mother had lost three children out of seven, and the last-born of the living children was a clear case of hereditary syphilis.

A. ERNEST JONES.

On the etiology and pathology of scleroderma in the new-born (*Riv. di Clin. Ped., January, 1904*).—**E. Mensi** contributes a diligent study of eleven cases, divided into two series—one composed of six cases where there was a local or general infection, such as bronchopneumonia, accompanied with nephritis, and the other composed of five cases where the scleroderma was the result of the same infection, but not associated with any evident renal lesion.

The first series are confirmative of the theory of Comba, who maintains that this condition is the effect of functional insufficiency of the kidneys, due to acute nephritis and secondary to a local or general infection.

The second series seems to show that scleroderma may be simply a concomitant of a local or general infective process, favoured in its morbid action by special conditions of circulatory debility and by the hypothermia which is met with in prematurely born children, in whom the occurrence of the disease is frequent.

VINCENT DICKINSON.

Investigations concerning sclerema and scleroderma in the new-born (*Boll. della Soc. Med. Chir. di Parma, April, 1903*).—**A. Monti**, from his own observations and analysis of the literature of the subject, comes to the conclusion that the morbid processes thus described, either from a clinical or pathological point of view, do not constitute a single pathological unity, but must be differentiated into three principal groups:—1st, an inflammatory scleroderma of the cutis, such as may be caused by infective emboli in the skin; 2nd, an exulative scleroderma due to disturbances of circulation from pulmonary or renal affections, such as those described by Comba in connection with an acute nephritis; 3rd, a genuine sclerema, characterised by induration of the subcutaneous adipose tissue without oedema. This proof has nothing in common with the others, and the author considers the question of its bacterial origin to be still *sub judice*.

VINCENT DICKINSON.

Abduction of the toes (fan sign of Babinski) (*Société de Neurologie, December 3, 1903*).—**C. Babinski** first referred to a previous communication in which he had pointed out that abduction of the toes, in response to plantar stimulation, formed one of the evidences of pyramidal disease included under the term *phénomène des orteils*, in England usually called the "extensor response." He now described the phenomenon of associated abduction of the toes in similar cases. This is elicited by getting the patient to alternately flex and extend the trunk on the thighs, first placing him on his back in bed and keeping his arms crossed on his chest; the toes will then gradually separate, the one from the other. This sign may or may not be found in conjunction with the one previously described, but has the same significance. It is more common in infantile hemiplegia than in adult hemiplegia, and more frequent in hemiparesis than in hemiplegia.

A. ERNEST JONES.

Movements during rest in disseminated sclerosis (*Journal de Neurologie, 1903, No. 3*).—**Bouchard** describes a case of this disease in a boy of sixteen, in which incessant involuntary movements, first of the lower limbs and later of the upper, persisted during rest. He refers to other like cases in the literature of the disease.

THEODORE FISHER (Bristol).

Asymmetry in painful sensations.—(*Journal de Neurologie, 1903,*

No. 8).—**Ioteyko** and **Stefanowska** have experimented with Cheron's algometer to find out whether the asymmetry in sensation generally extended also to pain. Forty-seven out of fifty subjects were more sensitive to pain on the left side than on the right, although they were right-handed. This is contrary to what is found in other sensations, and therefore suggests that the centres for the various sensations are different.

THEODORE FISHER (Bristol).

Contribution to the cure of rickets by phosphorus (*Riv. di Clin. Ped.*, January, 1904).—**N. Fedele** reports six cases in which, after a month's treatment, he noticed great improvement in the hardening of the bones, in the eruption of the teeth, and in ability to walk, and a beneficial effect on the laryngeal spasm, hyperæsthesia, irritability, etc. He considers that phosphorus neutralises the toxic substances which attack the bony and nervous systems. These toxic substances can originate in the gastrointestinal tract from dyspepsia, bad feeding, putrid fermentation, etc., and their variety explains the few unsuccessful cases of treatment by phosphorus which is unable to neutralise all of them. He gives half a milligramme of phosphorus dissolved in a teaspoonful of almond or cod-liver oil twice a day.

VINCENT DICKINSON.

Loss of tendon reflexes in tumour cerebri (*Archives de Neurologie*, January, 1904, p. 1).—**F. Raymond**, in a lecture on a case of tumour cerebri, discusses the question of the loss of deep reflexes in certain cases. Cl. Philippe and T. Lejeune had, at his suggestion, investigated the subject pathologically and clinically. They confirm the work of Mayer, Hoffmann, and Batten and Collier with respect to the morbid anatomy; the cord lesions found most constantly were degeneration of the posterior columns, but, occasionally, less marked lesions were found in the anterior root zones, and even in the lateral columns. The posterior column degeneration followed no systematisation, involving indiscriminately the external bandelettes, the cornu-radicular zones and the posterior columns proper; but they never included any endogenous fibres, such as the descending endogenous fibres of Gombault and Philippe's triangle, the centrum ovale of Flechsig, the peripheral dorso-lumbar bandelette of Hoche, etc. The intensity of the degeneration increased as one approached the root ganglion, thus giving a clue to the pathogeny. No evidence of an inflammatory process was found. The myelin sheath was first affected and the axis cylinder preserved for a very long time after; later, however, sclerosis might ensue.

Their view of the pathogeny of the lesions was arrived at by a consideration of the facts that the posterior root ganglia were very large, usually two to three times the normal size, and contained large lacunæ into which a stylet could be introduced from the subarachnoid space. They consider that the high pressure of the cerebro-spinal fluid in these cases induces a displacement of the cells and fibres of the posterior root ganglia, with a consequent degeneration of the cord fibres.

The symptoms produced are radiating pains, root anæsthesia, loss of deep reflexes, and sometimes slight ataxy, all of which are more common in the lower limbs.

A. ERNEST JONES.

The acromial reflex (*Olozyénié Psichiatriti*, 1902, VII).—**Bechterew** writes that, on striking the acromial and coracoid regions of the normal arm with a pleximeter, a slight flexor movement of the forearm occurs, due to the

action of the coraco-brachialis and the short head of the biceps. In hyper-tonic cases, as in organic hemiplegia, the reflex is more active and may extend to other muscles. In that case the hand will rotate inwards and the fingers flex.

THEODORE FISHER (Bristol).

The hypogastric reflex (*Obozrénie' Psichiatrii*, 1901, vi; *Neurolog. Centralblatt*, 1901, xx).—**Bechterew** describes a hitherto unknown reflex, in addition to the "abdominal" and "epigastric" superficial reflexes of the abdomen. When one rapidly strokes the skin of the internal surface of the thigh below the inguinal fold, contraction of the lower abdominal muscles on that side follows. This reflex corresponds with the lower part of the dorsal region of the cord, and may thus mark the level of a lesion if it be present and the abdominal reflex preserved. It is more constant than the epigastric reflex; both are lost on a hemiplegic side.

THEODORE FISHER (Bristol).

Rare monstrosity of the face and brain (*Nouvelle Iconographie de la Salpêtrière*, 1902, No. 3).—**Haushalter** and **Briquet** describe a case of an infant with a large frontal tumour crowning a scarcely-formed face with a naso-bucco-pharyngeal cloaca. Life lasted 41 days, and the post mortem revealed a hemilateral hydrocephalus with a resulting frontal encephalocele. The limbs were deformed from the presence of amniotic bands. It is rare for an encephalocele to appear elsewhere than in the occipital region.

A. ERNEST JONES.

A case of infantile latent cirrhosis of the liver (*La Pediatria*, October, 1903).—**G. A. Petrone** considers that the reason of the greater frequency of this disease in adults than in infants is, first, because the two great agents, alcoholism and chronic malaria, are absent in infants, and second, that inherited morbid taint shows itself mainly in the adult whose liver does not possess a nutritive activity and recuperative power like that of the infant. Further, that although infantile hepatic cirrhosis is rare from a clinical point of view, it is not so pathologically, as numerous autopsies show. The child, a female of 4½ years, had suffered when six months old from frequent febrile digestive disturbances; at one year old measles with bronchitis lasting a month; a year later a febrile intestinal attack lasting three weeks, probably typhoid. No history of syphilis, malaria, or abuse of alcohol; after two years it had a little wine mixed with water. The father—a cook—was addicted to excess of food and alcohol. The child was admitted for bronchopneumonia, supposed to be a sequela of diphtheria, and died five days later. The liver weighed 508 grs., surface slightly granular, mottled yellow and red, tough. Spleen 71 grs., dark red, with thickened capsule and trabeculae. Microscopically the liver showed marked connective-tissue proliferation in the portal and biliary areas, forming here and there islands more or less extensive with branching trabeculae, and in parts abundance of small round-cell infiltration with new-formed blood-vessels having a single endothelial layer. Bile ducts and hepatic vessels were normal, while the portal showed thickened walls in connection with the surrounding connective-tissue, but only a small number were obstructed or obliterated. The author thinks that a special disposition to cirrhosis in this infant was caused by the alcoholic habits of the father, and that the most important factor was the frequent digestive disturbances and the attack of typhoid. The absence of clinical symptoms of cirrhosis (except urobilinuria)

was noteworthy, since the cirrhosis was of long standing, and confirms the opinion that it has usually a course slower, and often latent, in infancy than in adult age.

VINCENT DICKINSON.

"Babeurre" for feeble children (*Journal de Médecine de Paris*, 2nd s., xvi, p. 180, May 1, 1904).—**P. de Sagher** confirms the experience of Baginski, Heubner, and other clinicians as to the value of this substance. Babeurre, or buttermilk, is simply the liquid part left in the making of butter. It should be administered in the following manner:—Add a soup-spoonful of arrowroot or rice to a litre of buttermilk; place on a slow fire and bring the mixture to the boil, taking about twenty-five minutes to do so; during this time it is most important to stir thoroughly, preferably with a wooden spoon; about 80 grammes of sugar is then added, and the whole cooled. This mixture should be well stirred before use, and given in the same quantities as milk. Babeurre is of value in all disorders of digestion in children, but more especially in the chronic gastro-enteritis and general wasting cases, when hardly any kind of food is tolerated.

A. ERNEST JONES.

Contribution to the study of the pathology of congenital megacolon (*Riv. di Clin. Ped.*, December, 1903).—**F. Valagussa** gives the case of a male, 3 years old, that had exhibited since birth obstinate constipation, evacuations only taking place every six or eight days. No action had taken place for three days previous to admission, when the child was comatose, with nocturnal convulsions, thready pulse, and marked meteorism. It died four hours later. Autopsy revealed fluid in the peritoneal cavity, colon displaced and distended with gas, hypertrophy of its walls, no ulceration or cicatrices. Histologically there was absence of mucous endothelium, in some places also of the tubular glands, the transverse muscular layer was uniformly thickened, the longitudinal layer thinned, increased vascularity in the submucous connective tissue. This was evidently a condition of congenital megacolon, and the author thinks that an abnormality exists in the embryonic evolution of the colon by which an extraordinary development takes place, specially in the connective-tissue elements—the muscular hypertrophy has only in a very small degree any functional origin, and consists in myopathy of the fibres.

VINCENT DICKINSON.

Acute fatal chorea with hæmorrhagic pericarditis (*Soc. Méd. des Hôpitaux*, April 15, 1904; *Gazette des Hôpitaux*, 1904, p. 438).—**Dupre** and **Camus** report a case of the above. The patient, a boy of eighteen, was admitted with ill-defined symptoms, and was thought to have typhoid fever. He had a curious mental state, with indifference, inattention, and altered intellect. He later showed signs of dry pericarditis, then developed chorea with extremely violent movements. Five days after the onset of the chorea he died, and post mortem was found an adhesive hæmorrhagic pericarditis, with thick false membranes.

A. ERNEST JONES.

Latent meningitis in pneumonia (*La Riforma Med.*, No. 8, February 24, 1904, p. 197).—**V. Curlo** describes two cases of pneumonia, which developed meningitis, and whose only cerebral symptom was delirium. The diagnosis was only made by lumbar puncture, when a turbid fluid, rich in polymorphonuclear leucocytes, was withdrawn. From this fluid Fraenkel's diplococcus grew in pure culture. The author thinks that such a condition

is commoner than is usually considered, and believes that it is often ascribed to delirium tremens. THEODORE FISHER (Bristol).

Abuse of milk feeding in infants (*Soc. d'Obstetrique, de Gyve, et de Péd., January, 1904; 'Gazette des Hopitaux,' 1904, p. 406*).—**Guinon** read a paper discussing fully a thing that had been pointed out before—the possible ill effects of milk in infants. A train of symptoms, including anæmia, malnutrition, indigestion, and enteritis were described as occurring in certain infants. The condition is more apt to supervene from the twelfth to the eighteenth month owing to the prolonged monotony of a milk diet. The treatment consists in stopping all milk, either temporarily or permanently, purging the child, and substituting another diet. This diet is not always easy to arrange. Various starches, given in vegetable broth, are suggested amongst other things. As a last resort, babeurre will almost always succeed.

One is a little sceptical as to how far the evil effects described could not be avoided by giving pure milk, as they seem to be due, quite possibly, to contamination. A. ERNEST JONES.

Meningitis complicating mumps (*Soc. Méd. des Hopitaux,' March 25, 1904; 'Gazette des Hopitaux,' 1904, p. 360*).—**Chauffard** and **Boidin** relate two cases. The onset of the meningitis was later than that of the parotitis, and it was marked by fever, headache, and especially by bradycardia. The diagnosis was established in both cases by lumbar puncture. There was a lymphocytosis in the blood in both cases, as also in the cerebro-spinal fluid. THEODORE FISHER (Bristol).

Disturbance of suction in the newly-born (*La Pédiat., October, 1903*).—**A. Jovane** describes the case of a child of eight days which from birth was not able to draw the milk either from breast or bottle, or to swallow when given milk from a spoon although it seemed to make vigorous sucking movements. There was no faulty conformation either of maternal breast or of infant's mouth, but the cause seemed to be a transitory arrest of cerebral development or a retarded evolution of the cerebral nerve centres governing the mechanism of sucking, or an inco-ordination of the muscles of suction. Seven days later by persevering, the infant commenced to draw a little. In support of this theory the author mentions a case by Pinard of a similar condition where the parents were syphilitic and which subsequently developed hydrocephalus and died, and another by Le Page where the mother had diphtheria while pregnant and where the infant for fifteen days refused to take the breast. Three hypotheses thus present themselves: first, an inco-ordination or defective association of movements of the muscles of the mouth; second, that at birth all the movements necessary for suction do not exist owing to the development of the central nervous system not being complete; third, that in the course of pregnancy the mother is attacked by some toxic infection which affected the central nervous system of the fetus. Infants affected in this way must be fed by breast milk drawn off and introduced through a stomach tube.

VINCENT DICKINSON.

Reviews of Books.

THE AFTER-TREATMENT OF OPERATIONS. A Manual for Practitioners and House Surgeons. By P. LOCKHART MUMMERY, F.R.C.S. Eng., B.A., M.B., B.C. Cantab. Pp. 220, Illustrations 29, Crown 8vo. Publishers: Baillière, Tindall and Cox, London. Price 5s. net.

As the author very rightly says, the after-treatment of operations is a subject of the very greatest importance and yet little has been written on it, at all events in a concise and easily obtainable form. Mr. Mummery has filled this long-felt want and filled it in an admirable and useful way. He takes up the first seven chapters with the discussion of the subject in a general way, following with the chapters devoted to the after-treatment of operations on the various parts of the body. In his introduction he treats of posture, sleeplessness, pain, thirst, bed-sores, and post-operative insanity or mania. Many useful hints are given, and some of the usually accepted ideas are dissipated. On two points only can we join issue with the author. It is hardly wise to recommend brandy and whisky as sleeping draughts, nor correct to say they "can be very seldom contra-indicated." Again, it is not always held that morphine is best given for pain after operations on the stomach or intestines. The following chapters on wound treatment, hæmorrhage, shock and collapse, and post-æsthetic complications are particularly good. The chapter, too, on post-operative rashes and drug-poisoning will prove of great value to many confronted for the first time with such untoward complications. The chapters on special operations are made especially valuable by the setting forth of the most likely complications to follow such operations and the best means of preventing and treating them. The treatment is laid down on most modern and practical lines, and in itself makes the book well worth perusal. Altogether Mr. Mummery is to be congratulated upon the able way in which he has treated his subject, and the book will prove of undoubted value to those for whom it is intended.

DONALD ARMOUR.

VAGINAL TUMOURS: WITH SPECIAL REFERENCE TO CANCER AND SARCOMA. By W. ROGER WILLIAMS, F.R.C.S. Publishers: John Bale, Sons, and Danielsson, Ltd.

THE object of this little book as set forth in the preface, "to co-ordinate and arrange the 'disiecta membra' in a concise and accurate manner," is certainly attained.

Whether there is a need for such a work is a debatable question, and we are inclined to think that the demand for this book will be rather limited. However, any student of gynaecology who desires to refer to any point connected with vaginal tumours in infancy and at later periods in life will find here a most valuable bibliography.

Though we may not endorse the author's advocacy of the "Sequestration Theory of Cancer," we heartily concur that, in the present state of our knowledge, partial operative measures are futile, and in the most radical procedures alone can complete eradication be hoped for.

J. HOWELL EVANS

THE PHARMACOPEIA OF THE NORTH-EASTERN HOSPITAL FOR CHILDREN.
Compiled by a Committee of the Medical Staff.

THE compilers of the pharmacopœia are to be congratulated on the result of their efforts, as the little volume contains a very complete and useful collection of formulæ for use in diseases of children. In the second portion of the book the diet tables of the hospital are printed, and they certainly are of a very minute character. In the case of children over five years of age a distinct diet is given for each day of the week, and full receipts are appended for preparing the various foods.

The remainder of the volume is given up to directions to mothers for bringing up their children, which are very practical and easily understood by hospital patients. Finally, there are directions for the management of rickety children, for cases of ringworm, and for the care of paralysed children, all of which are excellent in every way. It will be seen that there is much useful information which will be of service to anyone having the care of children.

LEONARD A. BIDWELL.

Preparations.

Benger's Food, when prepared for use as directed, contains the following ingredients:—Fat, 3·32 per cent.; soluble carbohydrates, 5·51 per cent.; starch, 1·45 per cent.; albuminoids, 2·64 per cent., of which 40 per cent. are soluble, and 53 insoluble, total 13·45 per cent. The method of preparation adopted by Messrs. Benger renders the casein less refractory to digestion, the curds being flocculent and like those met with in human milk. The standard of fat is a very high one, and in this respect it compares favourably with a good breast milk. The amount of starch in the preparation is quite small, and the soluble carbohydrates are well up to the standard.

Burrows' Malvern Water (The "Alpha Brand") is bottled direct from a protected spring in the Malvern Hills of guaranteed purity. Not only is it entirely free from organic matter, but it also lacks an objectionable quality met with in many otherwise good waters, viz. that of hardness. The total solids are less than 4 grains to the gallon. Only a trace of carbonate of lime and magnesia can be found, while sulphate of lime amounts to but 1·15 grains per gallon. This water also contains a little iron and a trace of iodide of potassium. Burrows' Alpha Brand of Malvern Water therefore possesses decided advantages for children's use. Its consumption removes the risk of contracting water-borne disorders, and for domestic purposes the most delicate infantile skins can only derive benefit from its topical application. Mothers should see to it that their children are supplied with the water and drink none other when travelling or holiday making.

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ON THE RELATIONS OF EPILEPSY TO AMENTIA.

By A. F. TREDGOLD, L.R.C.P.Lond.,

Formerly Research Scholar in Neuropathology of the London County Council.

FROM the standpoint of amentia, it has been usual to group together into one class all those patients in whom the mental defect was accompanied by epileptic (and often epileptiform) convulsions, and to apply to that class the term "*epileptic*" *idiocy* or *imbecility*.

But a closer examination reveals that this class is in reality a most heterogeneous one, and that, although in a certain proportion of the cases comprising it the epilepsy has the causal relationship to the amentia implied by this nomenclature, yet in the great majority no such relationship exists. It is with the various modes in which epilepsy may be associated with mental defect that this paper deals; for convenience the term epilepsy being used to include also those less frequent instances in which the convulsions are epileptiform and not truly epileptic.

The paper is based upon nearly 600 cases of amentia, in which the presence or absence of convulsions was specially investigated, and which were selected at random out of about 2000; in these the clinical condition, previous personal history, and often also the family history, were carefully inquired into. Convulsions were present in

about half of these cases. For the most part the cases were derived from institutions, but the very varied nature of these institutions has made it possible to deal with nearly every variety and degree of amentia, and thus to draw more general conclusions than would have been possible had the scope of the inquiry been more restricted. They embrace patients from Darenth Asylum, where the lowest degrees of amentia are met with; from Earlswood Asylum, where there is a larger proportion of milder and improvable cases; from the London County Council Asylums at Cane Hill, Colney Hatch, Claybury, and Hanwell, where many patients are of a still milder degree of mental defect, being simply incarcerated as a result of epileptic violence or actual insanity; and, lastly, from the very mildest grade of all within special training schools or homes.*

Of course, only a selection of cases, but a random one, has been dealt with from each of these institutions, so that the figures cannot be taken as indicative of the real extent to which the different varieties of amentia relatively occur; but since each case has been carefully classified according to its variety and degree of amentia, it is believed that they will at any rate give a fairly accurate idea of the extent to which convulsions occur in each of the groups examined.

It is perhaps desirable to state that the term amentia is a generic one, comprehending all the varieties and degrees of mental defect which are due to imperfect or arrested development; it is thus distinct from insanity—the abnormal action of the mind,—and dementia—the failure of the mental powers due to degenerative processes. Further, that amentia is divisible into two chief groups: *Primary*, in which the condition is one of *imperfect development* due to a disability inherent in the embryonic rudiment, the result of morbid heredity; and *secondary*, in which mental development has been *arrested* by some accidental and external cause. Of each of these groups there are several clinical varieties, also varying degrees of mental deficiency. As indicative of the three chief degrees the terms idiocy, imbecility, and feeble-mindedness are used.†

Briefly, the relationship existing between epilepsy and amentia is of three kinds, as follows:

1. *Cases of primary amentia in which epilepsy occurs as a mere complication.*

* I am greatly indebted to the respective medical superintendents of these institutions for their uniform courtesy in giving me access to the patients under their care.

† See 'Practitioner,' September, 1903, for a general account by the writer of the groups, varieties, and degrees of amentia.

2. *Cases of idiopathic epilepsy causing amentia,*
 3. *Cases of gross cerebral disease causing epilepsy and amentia.*
- It is in this order that they will be considered.

GROUP 1.

Primary Amentia complicated by Epilepsy.

Table I shows the extent to which epileptic convulsions occur in primary amentia. From this it is seen that out of 514 cases epilepsy was present in 211.

Probably this is somewhat too high a proportion for primary amentia generally, since a greater percentage of the worst cases will naturally be found in institutions, and we have no reliable statistics of the number of milder cases at large (feeble-minded and high grade imbeciles). Nevertheless, by classifying the cases examined according to the degree of defect present it is possible to arrive at the real percentage in the group.

Thus, leaving out of consideration for the moment those cases complicated by gross cerebral lesions, since these would introduce error due to selection, it is found that the percentage of epileptics is as follows:

In the <i>feeble-minded</i>	...	11 per cent.
„ <i>imbeciles</i>	...	42 „
„ <i>idiots</i>	...	56 „

From which it follows that, roughly speaking, 36 per cent. of primary aments are epileptic.

Or, considered in relation to their clinical variety, the percentage of epileptics is:

In the <i>simple variety</i>	...	37 per cent.
„ <i>microcephalics</i>	...	40 „
„ <i>Mongolians</i>	...	13 „

The presence of a gross brain lesion, whether due to a developmental anomaly or to a superadded morbid process, increases the proportion of epileptics enormously, since, taking these by themselves, 70 per cent. were found to be liable to convulsions. This, perhaps, is not surprising; and, since the relations existing between gross cerebral lesions and epilepsy will be more fully referred to in Group 3, it is unnecessary to say more regarding these cases in this place. I would, however, like to emphasize the fact that in the group we are now considering, although such gross lesions are possibly concerned with the greater prevalence of epilepsy, they have no relation to the amentia, but are simply accidental and superadded

complications. Here the real cause of the mental defect is a neuronie imperfection, as has been fully demonstrated microscopically; the gross developmental abnormalities are simply a further and more intense manifestation of such imperfection; the pathological processes are superadded morbid conditions to which it is not surprising that an imperfectly developed brain should be more than usually prone.

And it may not be out of place to remark of those *without* gross lesions that there is abundant evidence as to the amentia being really primary, although the great prevalence of epilepsy amongst them might almost lead one to think that they were really cases which should come into the next group, where the amentia had been produced by the epilepsy. That this, however, is not so, and that the convulsions are merely coincident and not causal, is fully demonstrated by the careful inquiries which I have made into the family and personal history and by the examination of the patients themselves. It is true that in the absence of any particulars of the family history or of the mental state of the patient in early life, the diagnosis between these two groups may be extremely difficult or even impossible; but ample data, aided by a careful examination, will in most cases solve the question, which, indeed, is of considerable importance when a case comes under observation for the first time and an opinion has to be given as to the prospects of improvement under special training. The chief points of difference between all the groups will be seen by reference to Table II (p. 305).

To what, then, are we to attribute the great prevalence of epilepsy in patients suffering from primary amentia? The fact that the presence of gross lesions so largely increases the liability to fits might suggest that in every case some coarse lesion of the brain is really present, even when not clinically indicated, seeing that the prevalence of fits increases with the degree of amentia. Such a suggestion, however, is not borne out by post-mortem examinations. It is true that in these cases one does occasionally discover after death coarse lesions which have given no indication of their presence during life, and undoubtedly the post-mortem examination of all cases now classed as simple, microcephalic and Mongolian would result in the transference of a certain number of them to the other group. The proportion so transferred, however, could not be a large one, since experience shows that in the great majority of these patients there is no definite lesion recognisable by the naked eye.

Such a presumption, therefore, cannot account for the prevalence of epilepsy to the extent of 36 per cent. of these cases, and, indeed,

the real solution can only be found in the cause and morbid process underlying epilepsy in general, since these cases are in fact amentia accompanied by epilepsy. As to that cause we know practically nothing, and it is beyond the scope of this paper. Assuming, however, that it is related to a functional instability of the cortical nerve cells, it is not surprising that such an imperfection of function should co-exist in a large proportion of patients suffering from a condition of which we know the essential substratum to be an anatomical imperfection of the cortical neurones.*

With regard to the convulsions themselves, as far as could be ascertained these were in every case typically epileptic, and in a few of the merely feeble-minded a premonition or definite aura existed. Amongst the lower degrees the mental condition naturally precluded any inquiry on this point, but trained attendants often professed to be able to foretell the onset of a fit by the appearance of the patient. The severity of the attacks was most variable, some being of the mildest possible type, others exceedingly severe and protracted; they were nearly always of the major variety, although in a few cases minor attacks also occurred.

The frequency of the attacks was also subject to much variation; thus in some cases they first appeared in the early months of life and thence continued almost daily during the existence of the patient. In other instances, after frequent fits during many weeks or months of early childhood, the patients remained free for several years, then to have a few more which were again followed by years of quiescence. In yet other cases, after an initial series of fits there was no recurrence. In some of these patients the attacks occurred with extreme rarity, and I have known several instances where only two or three had occurred in twenty years or more. In view of cases of this latter kind, which are, however, exceptional, it is hardly safe to reckon on the absence of epilepsy in any particular patient suffering from primary amentia, although the epilepsy makes its appearance as a rule within the first or the second decades of life.

The effect of the convulsions is much the same as in the ordinary individual, and appears on the whole chiefly to depend upon the severity and frequency of the attacks. If both severe and often recurring, the patient rapidly loses even his limited acquirements, whilst, if slight and seldom, the effect may be infinitesimal. But even in these milder cases in which no superadded degradation results, the presence of the epilepsy renders the prospects of im-

* Hammarberg, "Studien über Klinik und Pathologie der Idiotie"; Tredgold, "Pathology of Amentia," Mott's 'Archives of Neurology,' vol. ii.

being of short duration, the attacks last for hours and even days, and no other name can be applied to them than that of *acuta mania*.

The analogy between such psychic convulsions and the motor disturbances of epilepsy lies in their sudden spontaneous onset and equally sudden termination; also in the fact that although consciousness in the ordinary meaning is not lost, nevertheless the patients are for the time being quite oblivious of their surroundings, and on their recovery frequently affirm their complete ignorance of all that has passed during this period. Further, that such attacks are often followed by a period of dull, listless lethargy very similar to that occurring after epilepsy.

It is possible that the sudden outbreaks of passion and violence which are so common in the lower grades of primary *amentia* are of a similar nature.

GROUP 2.

Idiopathic Epilepsy causing Amentia.

In this group of cases the epilepsy is not a mere accompaniment, but is the actual cause of the mental deficiency, and to it, therefore, the term "epileptic" imbecility and idiocy should be restricted.

It is common knowledge that frequently repeated severe convulsions, or even minor attacks, may give rise to dementia, the anatomical basis of which is a degeneration of the same cortical cells and fibres as are imperfectly developed in *amentia*. It is easily understood, therefore, if neuronic degeneration may thus be produced, that the development of those neurones which is yet incomplete may be arrested.

So that, whilst it may not be possible to enumerate all the factors which are concerned in producing dementia, in the main they are severity and frequency of the convulsive attacks; whereas for the production of *amentia*, a third factor also is requisite, viz. early onset.

Now this third factor—early onset—exists in a considerable proportion of epileptics, and Sir William Gowers states that in 12·5 per cent. of cases the convulsions make their first appearance before the age of three years.* But in many of these, although the epilepsy persists throughout life, the attacks are slight and repeated at infrequent intervals, so that there is but little effect upon the general intelligence of the patient. In a certain proportion, however, the

* Sir W. R. Gowers, art. "Epilepsy," Clifford Allbutt's 'Syst. of Med.' vol. vii.

attacks are both severe and frequent, so that the mental development of the patient becomes arrested, and, whilst his body develops, his mind is no more advanced than that of the imbecile or feeble-minded person.

With regard to the proportion of epileptics so affected I can give no actual figures, but it is probably not more than about 5 per cent. Likewise with regard to the relative proportion of these epileptic imbeciles to all cases of amentia my figures are only approximate, owing to possible errors due to selection of cases; but I find that about 3.5 per cent. of my cases of amentia are of this nature.

Allusion must here be made to the effect of *teething convulsions* in causing arrest of mental development—a cause frequently alleged by the parents, at all events. In an inquiry which I made into the causes of amentia I found this factor to occur in 6.5 per cent. of all cases, but in four fifths of these it was found that there was a well-marked morbid heredity, and that the patients presented numerous stigmata of degeneracy; that, in fact, they were in reality primary aments, the teething convulsions being but the first manifestation of an accompanying epilepsy. In the remaining fifth of the cases the convulsions were probably due to idiopathic epilepsy; there was no primary amentia, but secondary amentia induced by a continuance of the fits.

The important differences between these two groups of cases will now be apparent, especially with regard to their prognosis. I have already mentioned that epilepsy complicating a case of primary amentia even of mild degree renders education much more difficult, but in the present group this difficulty is increased a thousandfold; indeed, if the mental defect is at all pronounced, it is almost hopeless to attempt special training. The reason of this is obvious: if the convulsions have been sufficient to produce amentia, in the majority of cases dementia is only a question of time, since degeneration is the real underlying process, the arrest of development being but an incident.

A summary of the differences between these groups will be found in Table II, but it may here be remarked that the diagnosis depends upon a careful consideration of several points, and can rarely be made from any one of these singly. Briefly these are: The *family history*, morbid heredity being usually much more pronounced in Group 1 than in Group 2; the presence of *stigmata of degeneracy*, which are never prominent in the secondary amentia induced by epilepsy, but are pronounced in all but the mildest degrees of primary amentia;

the *condition of the patient prior to the fits*, which will have been normal in Group 2, whilst in Group 1 it often happens that indications of mental defects have been observed; and lastly, the *nature of the fits* themselves, which in primary amentia tend on the whole to be less frequent and severe than in the true epileptic aments; also, in the latter, the fits will have been present from an early age.

GROUP 3.

Gross Cerebral Lesions causing Epilepsy and Amentia.

It is now necessary to consider a group of cases of an entirely different nature, namely that in which gross disease of the brain is the essential condition to the presence of which both epilepsy and amentia are due. In this class the most searching inquiries fail to reveal the presence of any morbid hereditary influences, the patients possess no stigmata of degeneracy, and prior to the onset of the pathological process to which their condition is due, their bodily and mental development has been in every way perfectly normal. In these patients, therefore, the epilepsy and amentia are purely secondary, accidental, and symptomatic of some underlying brain disease, and they must be carefully distinguished from the secondary epileptic aments of Group 2 and from the primary aments of Group 1; although, as has been remarked, the primary condition may be complicated by similar gross lesions.*

The pathological processes which produce these lesions are many and varied; broadly, however, they may be divided into two classes, viz. *Vascular* and *Toxic*. In the *vascular* group the process is either hæmorrhage, thrombosis, or embolus, which may be brought about by asphyxia neonatorum, trauma, whooping-cough, or one or other of the specific fevers. The final forms assumed by the lesions in these cases, as seen post mortem after the lapse of several years, are cysts, localised softening or atrophy, areas of sclerosis, porencephaly, and chronic meningo-encephalitis. In the *toxic* group the local process may be part of an infectious disease like scarlet fever, measles, small-pox, or typhoid fever; it may be due to the extension

* It may be noticed that there is a group of cases midway between these two extremes, where, notwithstanding some slight degree of morbid heredity, the mental development appears to run a normal course until the advent of one of these pathological processes. In such cases arrest of further development almost invariably follows; but the effect of the lesion seems to be rather contributory than causal, and the amentia really to be due to deficient vitality of the cerebral neurones which becomes manifest under the additional stress; it is therefore primary.

of an otitis or rhinitis; or it may be a direct primary infection of the cortical cells (polio-encephalitis acuta of Strümpell). It is probable that many cases of "infantile hemiplegia" are of this nature. In these cases the final lesions take the form of localised softening, cysts, sclerosis, meningo-encephalitis, and occasionally hydrocephalus.

Now, as elsewhere remarked, it is probable that the number of children in whom such pathological conditions as these occur is not inconsiderable, and a certain proportion so affected die; others, but only a few, appear to recover completely; whilst in yet others death does not take place, but a permanent legacy remains in the shape of a gross cerebral lesion.

The effect of this lesion upon the patient, however, is very varying, and three phenomena may result, either singly or in combination; these are *amentia*, *epilepsy*, and *paralysis*. Thus in some patients there simply results amentia, often of a mild grade, without either epilepsy or paralysis. In others there is some degree of paralysis, without amentia or epilepsy, and in others epilepsy alone. On the other hand there may be various combinations of these conditions, and we may have paralysis + epilepsy—amentia or paralysis + amentia—epilepsy, and lastly *amentia + epilepsy with or without paralysis*.

It is this latter group only with which we are here concerned, but it will not be out of place to briefly consider why such different clinical results should supervene on these lesions. The subject is of great interest, and material for such an inquiry abundant; it must nevertheless be admitted that hitherto the amount of exact microscopical work which has been done in this field is too small to enable the question to be fully answered. There are, however, certain features of the lesions which obviously have considerable bearing upon the point; these are (1) the time of its occurrence; (2) its site; (3) its extent; and (4) its nature; and these may with advantage be alluded to.

Time of occurrence.—It is an accepted fact that no regeneration of nerve-cells takes place within the central nervous system, and yet clinical experience constantly shows that lesions can to a certain extent be recovered from. This is, no doubt, partly due to the fact that some cells which were injured but not destroyed by the morbid process recover sufficiently to again resume their function. In other cases, however, there are reasons for thinking that the partial recovery is due to the bringing into play of other cells to replace those which have been rendered *hors de combat*. Now during child-

hood the deeper layers of the cortex cerebri contain large numbers of neuroblasts which lie between and among more fully-developed nerve-cells; indeed, such immature cells may often be found as late as middle life. So that it seems to be highly probable that the normal brain is supplied with neuroblasts far in excess of the number which develop into mature nerve-cells; that, in fact, there is a potentiality of cerebral development which is never attained by the individual. In course of time, doubtless, the developmental possibilities of these immature cells become progressively less, but at an earlier stage of ontogenetic history, and before lamination of the cortex has taken place, there seems no reason why their inherent capabilities should be appreciably less than others like them amid which they lie, and which subsequently develop into perfect nerve-cells; and it is quite possible that even for a time after lamination their power of development may be retained. In the ordinary course of events, however, many of these neuroblasts are not called into use owing to the fact that Nature provides more than become developed by the stimulus of incoming impressions and those varying factors which go to make up education; but should the more fully-developed cells be by any process destroyed, then it seems likely that under certain conditions these neuroblasts may rise to the occasion and take their place—in other words, that *compensation* may result. And it even seems possible that this compensation may be brought about by the development of corresponding immature cells of the opposite hemisphere to that diseased when the two sides have a function in common.

Such a view is by no means entirely hypothetical, but is strongly supported by many clinical facts. Thus many cases have been recorded in which the greater part of one cerebral hemisphere was practically useless by reason of porencephaly, cysts, hemiatrophy, etc., and yet the mental and motor defect was but slight; indeed, in a large number of these cases the clinical signs (particularly of paralysis) are astonishingly insignificant when compared with the state of the encephalon. Moreover, in one case which I have described, and in which practically all the large motor-cells (Betz) of the left leg area had failed to develop consequent upon a vascular lesion during birth, I was able to demonstrate a compensatory increase in the Betz cells of the opposite hemisphere. If, therefore, compensation and recovery can take place to this extent with regard to motor function, it does not seem unjustifiable to conclude that the destruction of those cells which subserve the higher mental processes may in a similar way be partially made good, and many otherwise

puzzling facts become explicable on this view. Compensation, however, is rarely, if ever, perfect, and some defect will permanently remain, but it is obvious that the degree of this will largely depend upon the developmental period—the age—at which the lesion occurs, upon the amount and kind of special educational treatment received, and upon some other features of the lesion to be now referred to.

Site of lesion.—It is clear, from our knowledge of cortical localisation, that the site of the lesion will be an important factor in influencing the result. The presence of paralysis is readily accounted for if the lesion has involved any part of the efferent tract. Amentia is explained on the assumption that the pre-frontal, frontal, or parietal lobules have been affected, since it is now well known that these regions are chiefly concerned in psychological processes.* It must, nevertheless, be remembered that since intellectual development takes place in response to impressions received from without, a lesion of sufficient extent in a special sensory area of the immature brain may suffice to produce subnormal psychical development by the cutting off of these impressions. With regard to epilepsy, the influence of the site of the lesion is not in every case quite so clear. It is certainly possible, and of common occurrence, for a lesion in or near the cortical motor centres to cause epileptic convulsions without paralysis, and this is probably because slight damage and disturbance of function have been produced without any actual destruction; in such cases paralysis may subsequently supervene, or in such a situation a lesion may cause epilepsy and paralysis simultaneously. On the other hand, it sometimes happens that lesions situate elsewhere give rise to epilepsy, and then possibly such may be brought about either by reflex irritation or by an increase of intra-cranial pressure causing functional disturbance.

Extent of lesion.—The influence of this will be sufficiently obvious. It is, however, necessary to remember that in the rapidly developing brain of the newly-born the arrest is not limited to the area actually involved by the morbid process; but that groups of cells and areas functionally and anatomically correlated elsewhere may also be affected. Other things being equal, the involvement of both hemispheres is naturally of more serious import than where one only is affected.

Nature of lesion.—It might be expected that, apart from its incidence as to time, site, and extent, it would matter but little what

* Vide Bolton, "Histological Basis of Amentia and Dementia," Mott's 'Archives of Neurology,' vol. ii; also Tredgold, *loc. cit.*

was the actual nature of the initial morbid process. This, however, is not so, and the later state of the lesion, and therefore the clinical condition of the patient, appears to be largely influenced by this factor. I have already mentioned the chief conditions in which these different morbid processes finally culminate, but from our present point of view—the effect upon the patient—it is more important to look at them from another aspect, viz. according to whether the lesion becomes *stationary* or continues *active*, and has a tendency to extend. Our knowledge is not as yet sufficient to enable us definitely to say which of these results will happen in any particular initial process since such probably depends upon an aggregation of at present unknown factors. In general, however, I am inclined to think that the small lacerations of brain tissue due to hæmorrhage, the softenings resulting from the thrombus or embolus, and the destruction of cells due to polio-encephalitis, tend to become definitely localized and shut off; whilst such conditions as meningo-encephalitis and hydrocephalus are more liable to remain active and to spread; but this is largely conjecture. It will readily be conceived how the stationary or active condition of the lesion will affect the patient, and that whilst compensation may occur in the former group as a result of special training, it is much less likely to happen should the pathological process continue active.

Considerations of this kind will help us in some measure to understand why these gross cerebral lesions should be attended with such different clinical results, and why in some patients the effect is but trifling, whilst in others severe amentia, epilepsy, and paralysis, singly or in combination, may follow.

But the amentia is not always thus the *direct* result of the lesion. I have now seen many cases in which the only effect of this was to produce epilepsy without any mental affection whatever; and yet after the lapse of a few years pronounced amentia, subsequently passing into dementia, had occurred. In such cases inquiry has always shown that the convulsions have been severe and of frequent recurrence, and it appears to be to this that the arrest of intellectual growth is really due, precisely as happens in the cases referred to in Group 2. And even where amentia results directly from the lesion, it will be greatly intensified by the presence of severe epilepsy.

On the whole, in these cases in which gross lesions exist, the prognosis as to chances of amelioration will be largely dependent upon whether convulsions are present or not. In their absence suitable education will certainly lead to improvement, often to a

surprising extent, and it is quite common for these patients to be trained sufficiently to earn their own living, and even to do really excellent manual work.* In the presence of severe convulsions, however, or even of frequent *petit mal*, improvement must not be expected, and progressive deterioration is usually only a question of time.

A few remarks may be made regarding the convulsions in these cases. Notwithstanding the generally one-sided position of the lesions, they are, in the great majority of the cases, quite indistinguishable from the major attacks of ordinary idiopathic epilepsy. In a small proportion of cases, however, there is no loss of consciousness, and the convulsions have a distribution corresponding with the localisation of the lesion, being, in fact, *epileptiform* or Jacksonian. But even in these cases attacks of *petit mal* also often occur, and in course of time it usually happens that the fits gradually become more generalised, that consciousness is lost, and that they pass into the ordinary variety, so that it is probable that if more accurate data were forthcoming of the earlier history of these patients it would be found that the initial fits were more often epileptiform than now appears. Their frequency and severity is subject to the same variations as in the preceding groups. Exceptionally it may happen that the motor disturbance in these cases takes the form of a constant, coarse, rhythmic tremor, which may affect one or more limbs or even the entire body. This is often termed "chorea," but it is more akin to the tremor of Disseminated sclerosis or Paralysis agitans. The condition, however, is so rare as to have little practical importance.

In conclusion, it must be remembered that the association of mental defect with convulsions also occurs in juvenile general paralysis and (rarely) in infantile cerebral degeneration. It is desirable to mention this because a mistake in diagnosis is quite possible. But these conditions are purely degenerative, and their prognosis is absolutely hopeless.

* An interesting case of this nature is mentioned by Dr. Shuttleworth in the March number of this Journal, p. 110.

TABLE II.—*Showing the Points of Difference between the Three Groups in which Epilepsy and Amentia co-exist.*

	GROUP 1. Primary amentia complicated by epilepsy.	GROUP 2. Idiopathic epilepsy causing amentia (secondary).	GROUP 3. Gross cerebral disease causing epilepsy and amentia (secondary).
Morbid heredity	Pronounced	Less pronounced	Absent.
Condition of patient before the fits	Some degree of amentia or general backwardness usually noticed	Normal	Normal. Onset of fits can generally be traced to some definite morbid process affecting brain.
Nature of fits	Epileptic. Usually milder and less frequent than Group 2	Epileptic. Severe and frequent	Epileptic. Occasionally epileptiform, rarely constant, rhythmic tremor.
Condition of patient after fits have made their appearance	Degree of amentia often much greater than would be accounted for by the severity and frequency of fits. <i>Paralysis</i> may be present also if a gross lesion co-exists	Amentia usually mild, but much dementia	Considerable amentia may be present with mild and infrequent fits.
Stigmata of degeneracy	Marked (except in highest grades)	Slight	Absent.
Prospects of improvement under special training.	Dependent upon severity and frequency of fits, but on the whole better than in Groups 2 and 3	Practically none	Dependent upon time of occurrence, site, extent, and nature of lesion, and upon severity and frequency of fits. Usually intermediate between Groups 1 and 2.

THE TREATMENT OF VESICAL CALCULUS IN CHILDREN.

By DOUGLAS DREW, B.S., F.R.C.S.,

Surgeon to the North-Eastern Hospital for Children, and to the Hospital for Women, Soho Square.

At the present time, when the operation of lithotrity or rather litholapaxy has been so perfected and extended so as to include the treatment of vesical stone in children, it may appear to some of your readers that the final word has been said on the subject, *i. e.* that the operation of lithotrity is that of "election" and that lithotomy, and by that I mean supra-pubic lithotomy, should be reserved for

exceptional circumstances. In fact, I am not sure that the enthusiastic lithotritist is prepared to admit any exceptions to the rule.

In approaching the subject, therefore, I do so fully recognising that the remarks I offer for consideration are open to the criticism that they are the outcome of the somewhat limited experience that can be obtained at a London children's hospital (where vesical calculus is by no means prevalent), while the accepted practice is largely the result of the enormous experience gained by surgeons practising in India. Nevertheless the results I have obtained have been so gratifying that they appear to justify a reconsideration of the subject.

It is only within recent years that the operation of lithotrity has been practised upon children, and although it has now reached a high stage of perfection—which, by the way, is in great measure due to the improvements that have been made in the instruments by which it is performed—yet medical literature points to the fact that during what may be termed the developmental stage, as is the case with many other recent surgical procedures, the experience has not been gained without risks, and it is easy to recall to mind many accidents that have been recorded in the medical press. Some of these have resulted from imperfect instruments, others may be more correctly attributed to faulty manipulations; and although accidents belonging to the latter class, such as over-distension with subsequent atony of the bladder, or actual rupture during the process of evacuation, may be disregarded as unlikely to occur if due care be exercised, yet this is not the case with complications arising from imperfect instruments. To this class belong (1) jamming of the blades of the lithotrite by *débris*, which if it cannot be dislodged prevents the instrument from being withdrawn; (2) bending of the instrument from overstrain; (3) breaking of one of the blades.

Any of these complications may necessitate supra-pubic cystotomy, and if the instrument has been bent great difficulty may be experienced, as it will probably mean that the bent blade will have to be filed off; on the other hand, if the instrument breaks the risk is considerable that the broken blade may penetrate the bladder-wall.

Doubtless with the recent improvements in the manufacture of small-sized lithotrites the accidents due to faulty construction have diminished, still the fact remains that they are inseparable from the operation. But apart from these disadvantages, other more important points require consideration in discussing the relative merits of supra-pubic lithotomy and lithotrity.

I would enumerate them under the following heads :

1. Which method is the more certain to result in a cure, or the less likely to be followed by recurrence of the symptoms ?

2. The relative risk ?

3. Which method entails the least suffering and the more speedy convalescence ?

With regard to the first point. It is, I believe, beyond question that a certain percentage of cases treated by lithotripsy are not permanently cured, while it is extremely rare to meet with recurrence after lithotomy. The recurrence is either due to minute fragments of the calculus remaining in the bladder (*i. e.* the process of evacuation has been imperfect) and forming the nucleus of further trouble, or the irritated condition of the mucous membrane after lithotripsy may be such as to favour the formation of another calculus, particularly if the urine is alkaline and phosphatic. That the recurrence cannot be attributed to the descent of particles from the kidney is clear, or we should find that recurrence would be met with more frequently after lithotomy.

In the hands of those specially skilled in litholapaxy this frequency of recurrence is doubtless reduced to a minimum ; but the fact that this minimum still exists proves that lithotomy is the more certain to result in permanent cure.

2. The relative risk ? In considering this point it is important to remember that the risk of supra-pubic lithotomy has been greatly reduced by modern aseptic methods, and it must not be forgotten that now-a-days the operation is largely reserved for the complicated cases of vesical stone, while lithotripsy claims a large proportion of the simple cases, so that it is difficult to form an accurate estimate, but I believe it would be slightly in favour of the crushing operation.

3. Which method entails the least suffering and the more speedy convalescence ?

Let us first consider an ordinary case of vesical calculus—without complications such as cystitis. The expert lithotritist will claim that the child will be well and about in less than a week, and that after the operation will suffer no discomfort. When such a result is obtained, the operation may, without exaggeration, be described as ideal ; but how frequently do we find that much irritability of the bladder persists for a week or two, and often longer, with pain on micturition, and possibly the passage of small fragments which add to the distress ; and finally it is found advisable to administer a second anæsthetic in order to sound the bladder or apply the evacuator in case some small fragment is causing the symptoms, which,

by the way, prolongs the convalescence. In such a case as the above, if treated by the supra-pubic operation, the bladder can be accurately sutured after the removal of the stone and the wound closed throughout, and healing by first intention will almost certainly be obtained and the patient will be well in a fortnight, while the additional advantage will be ensured that there are no particles to come away or to remain to perpetuate the trouble.

In order to obtain such a result it is safer to drain the bladder *per urethram* with a soft rubber catheter for four or five days after the operation: this causes some discomfort, but in most cases is well tolerated.

It may be urged against this method of procedure that sutures placed in the bladder wall have been known to ulcerate into the interior and to form the nucleus of a concretion. This objection is met by using an absorbable suture—fine chromic gut, and inserting the sutures by Lembert's method. I have treated six cases in this manner; in five union occurred by first intention, and in the sixth the wound leaked, and necessitated the removal of the stitches, and as cystitis was present at the operation it would have been wiser not to have attempted to suture the bladder, but to have drained it.

In cases in which cystitis is present, the risk of recurrence after lithotripsy is considerably increased, as the cystitis is aggravated, and the treatment after the operation is unsatisfactory, as it may be impossible to wash out the bladder through a catheter without giving the child an anæsthetic. These cases are more certainly, and probably also more rapidly cured, by the supra-pubic operation and subsequent drainage of the bladder through the wound for a week or so. In a short time after the operation the cystitis generally subsides, with or without irrigation, and although the healing of the wound takes on the average about eighteen to twenty-one days, yet the result is eminently satisfactory, as the urine remains normal.

So far I have limited my remarks to the treatment of cases where the selection of the particular method is optional and is likely to be largely influenced by the preference, or what is much the same thing, the experience of the surgeon.

In certain cases, *i. e.* when the stone is unusually large or hard, it may be impossible, or, at least, inadvisable, to attempt to crush it. It is in these cases that an accident is so liable to result to the lithotrite if crushing be attempted.

Another condition necessitating the supra-pubic opening and

drainage is that troublesome condition of phosphatic deposit on the mucous membrane of the bladder.

It is almost unnecessary to point out that the supra-pubic operation is more easily performed in children than in the adult, as the bladder is an abdominal organ, and there is practically no risk of opening the peritoneum if the bladder is injected with four to six oz. of fluid before the operation is proceeded with.

In those cases in which it is necessary to drain the bladder it is a good plan to pass a suture through the bladder wall on each side of the tube. By tying the suture the bladder wall is drawn around the tube and thus effectually prevents leakage into the dressings, and the urine can be drained away into a bottle.

Clinical Memoranda.

CAPILLARY PULSATION IN URTICARIAL WHEELS.

By GEORGE CARPENTER, M.D.

URTICARIA in early childhood is one of the most common ailments, but capillary pulsation in the wheals is a decidedly unusual feature. For these reasons I would draw attention to a phenomenon—a marked capillary pulsation in the wheals causing alternate blanching and blushing synchronous with the heart beats, unconnected with aortic disease, but quite similar to that which can be so readily observed through a glass microscopic slide on the lips of patients with that disorder. The recent observation of a marked case of pulsating urticaria has brought the condition once more prominently to my notice, and it has induced me to place what I take to be an unusual condition on record. Thus, a small boy of $2\frac{1}{2}$ years, the son of a surgical friend, was sent to me with marked urticaria. It was of but one day's duration, the wheals were very large and prominent, and many of them surmounted by a diffused and clear exudate. Some were capped by tense bullæ. Capillary pulsation was a prominent feature in the various lesions, and factitious urticaria was observed.

The Society for the Study of Disease in Children.

A MEETING of this Society was held on Friday, May the 27th, 1904, at 11, Chandos Street, Cavendish Square, W., Mr. WALTER EDMUNDS being in the chair.

A Case of Multiple Sarcomata of the Scalp in a child of two years was shown by Mr. WILSON for Dr. EDMUND CAUTLEY. In September, 1903, the right eye had been excised for glioma. One month previously lumps had been noticed on the head, which had grown rapidly. At present the new growths were numerous, large, and scattered over the scalp. There was also evidence of involvement of the left eye, and a purple discolouration of the eyelids on both sides was present. The face was of a waxy pallor and oedematous.

Mr. GEORGE PERNET described a case of multiple sarcomatous growths in the skin, in which the right eye was bulged forward, presumably from a primary growth behind it.

A Case of a Tumour occupying the Left Half of the Abdomen in a girl of six years was shown by Mr. FRANCIS JAFFREY. She had suffered from pain in the left side of the abdomen, hæmaturia, and difficulty in micturition. The tumour was smooth and elastic, did not fluctuate, and was fairly movable. He was of opinion that it was a case of sarcoma of the left kidney, and asked as to the advisability of operative treatment.

Mr. WATSON CHEYNE agreed with the diagnosis, but thought that complete removal could not be looked for, as the pedicle of the kidney seemed to be involved.

Mr. CLEMENT LUCAS thought that, as the case was probably hopeless if left alone, an effort might be made to remove the tumour if possible.

The CHAIRMAN (Mr. Walter Edmunds) thought that an exploratory incision might be employed to determine whether the tumour was removable or not. He asked for particulars as to the history of such cases after operation.

Mr. THOMSON WALKER said that an increasing number of renal tumours were being removed from children with immediate good results, and with a good after-history, namely of three to five years in which no recurrence had taken place. Each case must be taken on its own merits, and if the tumour were examined from within the abdomen there would be a better chance of ascertaining whether it was removable, and whether there was likely to be a recurrence.

A Case of Status Lymphaticus was described by Mr. HUNTER TOD. An infant of six months had been the subject of laryngeal stridor and died suddenly. Dr. WALTER EMERY showed the organs from this and another infant affected with the status lymphaticus. There was an enlargement of practically all the lymphoid tissues of the body, including the thymus, the glands (especially the mesenteric), the solitary follicles, and Peyer's patches in the intestine, the tonsils, and the adenoid tissue of the naso-pharynx. The spleen and tongue were normal, the latter not showing enlargement of

the circumvillate papillae, which had sometimes been described as of diagnostic value. The thymus gland weighed almost exactly an ounce in each case, but there was no evidence of direct pressure on the vagus, the trachea, or the heart. He drew special attention to the marked thickening in parts of the intestinal wall from the overgrowth of lymphoid tissue.

Dr. E. P. BAUMANN confirmed this observation. He had seen two fatal cases, one an infant of three months and the other aged nine months. The first infant was brought to the hospital in a state of great respiratory embarrassment, cyanosed, and uttering peculiar respiratory sobs. Death soon ensued, and the thymus was found to weigh four and a half ounces. It lay chiefly on the right side, pressing on the heart, and it might also have pressed on the trachea, causing death directly from suffocation.

Mr. THOMSON WALKER said this was a very important subject, not only from the medico-legal point of view, but also from the surgical. One writer had collected ten cases in which death had occurred, at the commencement of chloroform administration, or during it, or immediately after the operation. In addition to the other changes mentioned, a hypoplasia of the arteries had been noted, leading to narrowing of the lumen.

Dr. EMERY, in reply, said that one could not absolutely exclude pressure on the trachea from the post-mortem findings. The thymus might suddenly become engorged with blood and exert direct pressure on the trachea, and all signs of this might have passed off before the post-mortem examination.

A Case of Tuberculous Periostitis was shown by Mr. LOCKHART MUMMERY. There was a fluctuating swelling on the middle finger of the right hand, and the right radius and right cheek were also the seats of tuberculous growths.

A Case of Paralysis of the Left Trapezius Muscle following an Attack of Herpes was shown by the CHAIRMAN (Mr. Walter Edmunds). The patient was a girl of six years who, three weeks after an attack of herpes affecting the skin over the left shoulder and the upper part of the left scapula, was found to have "winging" of the left scapula. This was found to be due to weakness of the left trapezius muscle, which responded neither to galvanism nor faradism.

A Case of Achondroplasia in a boy of twelve years was demonstrated by Mr. HAROLD BALME. As usual in this affection the membrane bones were unaffected, while all the long bones showed marked shortening.

Mr. A. D. REID showed a series of skiagrams of this patient, with the following abnormal features: (1) The ends of the diaphyses were expanded. (2) Both humeri were bowed. (3) There was a lateral curve in the left tibia and fibula. (4) The ends of the diaphyses of the long bones were notched. And (5) The phalanges were short and broad.

A Case of Tuberculous Disease of the Elbow Joint, with Dislocation of the Upper End of the Radius, in an infant of fifteen months, was shown by Mr. J. THOMSON WALKER. Three months after a fall the elbow had become swollen and tender, and the child was treated at another hospital for fracture about the elbow, the arm being put up in splints, and later massage was used. Under this treatment the arm got steadily worse. Mr. Thomson Walker found the ends of the humerus, radius, and ulna to be markedly thickened, and the joint swollen. There was also thickening of the fifth

metacarpal bone of the left hand. As regards the diagnosis, he had to consider whether a fracture had ever been present, and whether syphilis might not be a factor in the case, as there was a history of numerous miscarriages. Under mercurial inunction and splinting the condition had almost entirely cleared up after four months. The patient then passed from observation, and some months later the joint was found to be much worse, and the upper end of the radius was dislocated forwards. Later there was definite evidence of tuberculosis in the joint.

A Girl aged Two Years, with Motor Paraplegia and with Absence of Speech, which might have been Congenital, or Syphilitic, or Secondary to Scarlet Fever and Diphtheria, was exhibited for diagnosis by Dr. EWART. He demonstrated a method of using the reflexes (superficial and deep) as a means of exercising paralysed muscles, which he had not previously published.

A paper on **a Case of Perforated Gastric Ulcer** in a boy aged thirteen was read by Mr. WATSON CHEYNE and Dr. R. H. W. WILBE (introduced). The patient had enjoyed good health until the onset of the illness, which was marked by severe abdominal pain about the umbilicus. He rapidly became worse, and after consultation the same evening it was decided to operate. The appendix was examined, found to be diseased, although not actively, and was removed. As the signs pointed to some rupture, the rest of the abdomen was explored, and over the front of the stomach some turbid fluid was found, and gas bubbled up. On further searching, a small, round perforation was found on the anterior surface of the stomach about an inch from the cardiac end, from which gastric juice and gas were escaping. The ulcer was treated in the usual way, and the boy made an uninterrupted recovery. They referred to the rarity of perforating gastric ulcer, apart from tuberculosis, at this age. Another point of interest was that a diseased appendix was found and removed, but the presence of gas in the abdomen showed that there must be some other lesion. Unless this sign had been regarded as conclusive they would not have discovered the ulcer, for its situation was so remote that every part of the intestines and stomach had been previously examined, and very careful searching was required to find it.

Mr. CLEMENT LUCAS was not quite sure from the history of the case that tuberculosis could be excluded as the cause of the ulcer. The condition was certainly a very rare one.

Dr. PORTER PARKINSON referred to a case he had met with in a child of two years, where death was due to a perforating gastric ulcer, and where post mortem no trace of tuberculosis could be detected in any part of the body.

Editorials.

THE TEACHING OF ELEMENTARY HYGIENE IN LONDON.

It is well known, though not sufficiently realised, that much of our mortality, especially in children, is due to popular ignorance on

simple matters of hygiene. Any effort, therefore, made to disseminate knowledge on such matters must command our respect and commendation. We thus recognise the debt of gratitude that London owes to the School Board for its inauguration of the Evening Continuation Classes. But, however grateful we may be to any lay authority that undertakes such pioneer work, it must be the duty of the medical profession to watch with the closest interest, and if necessary to criticise the methods used in an enterprise which so essentially concerns them. Unfortunately, however, of all the Government Departments that of Education is the most strikingly independent of expert advice. It is well known that these evening classes were established in the face of serious opposition. At the present time some apprehension is felt as to the attitude which our new educational authority, the London County Council, will adopt towards them, and we shall therefore take the opportunity of considering the subject in some detail.

In a number of schools classes are held in the subjects of Home Nursing and Hygiene. The average number present varies from fourteen to thirty or more. The age of the majority is from sixteen to twenty-two, though in some of the nursing classes there is a large proportion of older people. In the first subject twenty-four lectures are given, in the two sessions of the year, by a trained nurse or teacher. Half of these lectures may—but need not—be delivered by a medical man. In the second subject the two courses consist of thirty-two lectures, only medical men being recognised as teachers. Eight of these lectures are given to audiences consisting of only one sex. The lesson lasts one and a half hours, sometimes more but never less. This means, as the school is often some miles from the medical man's home, that a whole evening is given up to the work. He is paid one guinea for each evening.

First let us consider the audience. It consists chiefly of the youth of the lower classes. Whether this be the most desirable material to hand is beyond the scope of this article to discuss, but it should be remembered that any endeavour to interest such an audience in serious questions is by no means an easy task. Often there is manifest anxiety on their part to convey to the lecturer that, having outgrown schooldays, they are no longer subject to any restriction,

and, in fact, attend the classes only as a special favour. Again, the mingling of the sexes, which is the case in most of the lectures, cannot conduce to continuity of interest in any subject save one.

What should be the duration of the lesson to such an audience untrained to intellectual concentration? The experience of each of us in his student days may help us. How often was the last quarter of an hour otherwise than tedious in a lecture which lasted an hour or less, and in which there was a vital and personal interest in the subject-matter? What, then, shall be said of a Board of Education which refuses a grant except under conditions which render compulsory a lesson of an hour and a half's duration under the above adverse circumstances? We do not envy the unfortunate lecturer as he beguiles the time that has to elapse between the termination of the audience's profound interest in subsoil drainage and the striking of the clock that announces the earning of another grant. We understand that the decision of the Board of Education is inflexible on this question, which would seem to be clear to the meanest intelligence. We hesitate to credit this, and think that the course should be reorganised on very broad lines. For instance, if the two classes were combined—and we know of no valid reason why they should not be—four medical lectures to men and ten or twelve to women, twice a year, should be sufficient. This is exclusive of nursing details, such as temperature taking and bandaging, which can be taught equally well by trained instructors. A lecture of half an hour and a demonstration of a quarter of an hour, followed by three quarters of an hour for the practical work of those details, would cover all the points that can be taken in by such an audience, especially if the syllabuses be revised. We do not labour the folly of the mingling of the sexes in these classes—it is surely beyond dispute. Let anyone try to picture the last half hour of a lesson in the East End of London, especially next year, when, so we learn, lantern demonstrations will be in vogue, and but one opinion is possible.

Next, let us consider the lecturer. We think strongly that no course of lectures should be delivered on such important subjects save by qualified medical men. Not only so, but that these lecturers should be selected from men who have a practical knowledge of

disease, and especially with disease in children, and who are abreast with the latest teachings of medical science. The pay of a competent staff should be at least three times the present rate, or better still, they should be retained and given fixed salaries.

Lastly, we have to review the subject-matter. Our complaint here is two-fold. To begin with, the perspective shown in the arrangement of the syllabus is false. Consumption and its prevention is surely worthy of more attention than communicable skin diseases (exclusive of the exanthemata), yet both are allotted the same space and time. Does one lecture out of sixteen show an adequate recognition of the importance of infant feeding? It may be doubted whether it be necessary to devote an evening each to the consideration of such subjects as exercise, clothing, water, and personal hygiene, when all the few important points in each could be adequately dealt with at much less length. It may be that such errors arise from the fallacy of teaching the points of a subject to a popular audience in the order in which their discovery was made, in other words in much the same way as such a subject would be taught to a medical student. As an illustration let us take the subject of water supply. It is true that infection by means of water was only recognised after repeated experiments had demonstrated that the prevalence of certain diseases may be correlated with the impurity, or the reverse, of the water supply. But if one wishes to emphasise the occurrence of such infection and explain that it is brought about by careless bestowal of the ejecta of certain patients, it is by no means necessary to go into such problems as "the methods of purification of a town's water supply," "filter beds," "subsoil drainage," and so on. Else might we have the rising generation of the East End inquiring too closely into matters at home.

Then, again, much of the instruction recommended is not based on the latest opinions of the subjects under consideration. We know, for instance, of no warrant for the opinion implied in the heading, "Consumption, its relation to impaired vitality, the result of foul air and overwork in overcrowded rooms." What we do know is that deficient ventilation means more consumption, simply because it increases the opportunity of infection, which is a very different state-

ment. Indeed the teaching of the importance of ventilation seems very half-hearted throughout. Thus there is the remarkable statement that "*Sick* rooms must be ventilated by night as well as by day"; also that "to keep the air pure in a *sick* room it must be changed more than once an hour." When one reflects that the average space per person in the bedrooms of the lower classes is nearer 400 than 1000 cubic feet, it is clear that the ventilation thus directed would be only one-sixth of even the old-fashioned standard; what the *healthy* room is expected to have we dare not think. The ideal held out to the lower classes in this matter is hopelessly low. Hincke's-Bird's device of preventing draughts is emphasised, and models handed round to each class. Diagrams, interspersed with curious arrows, are shown, which, if accurate, would indicate a freedom of air entry between the room and the outside almost rivalling in its thoroughness that existing between the pharynx and duodenum. Again, although it is recommended to take children with "summer diarrhoea" at once to a doctor, the advice is stultified by a description of such treatment as the use of fresh whey, raw meat-juice, and egg water. Such minor points as the placing of an isolation sheet over the door of a sick room, and the use of carbolic oil, in spite of our present day knowledge that phenol in such a solution loses all its germicidal properties, do not commend themselves as showing much recent knowledge.

Let it be understood clearly that we give such criticisms as these in no carping spirit, but with a whole-hearted desire that the work be prosecuted in as efficient and thorough a manner as possible. We consider that the County Council has been given great opportunities for improving the health of London—opportunities that no body has ever had before—and that their responsibility is correspondingly great.

THE STATUS LYMPHATICUS.

FROM time to time cases of sudden death occur in children who are apparently in good health, in which the pathological changes are more or less uniform. These changes are hyperplasia of the retiform tissue throughout the body. Enlargement of the thymus, the

spleen, and the lymph glands are constant accompaniments of the disorder. Associated with these changes are cloudy swelling of the liver and kidneys. Nordmann, a Swiss, was the first to call attention to the condition, and instances have been reported in Europe and America during recent years, but such cases have not excited much attention in the United Kingdom. Although mainly a disease of childhood it is not unknown in adult life.

During the last session of The Society for the Study of Disease in Children two pathological specimens from the Paddington Green Children's Hospital have been exhibited; one from an infant of ten months in whom the prominent symptom during life was laryngeal stridor due to sucking in of the sides of the epiglottis, and who died after three months. Sudden laryngeal spasm occurred, accompanied with cyanosis, which was rapidly followed by extreme pallor together with pulselessness. In another child of eleven months who was free from laryngeal obstruction, and who died during the administration of chloroform, breathing suddenly ceased. It was found impossible to get the finger into the larynx, as the glottis seemed to be tightly closed. Suddenly it opened with a clicking sound and the respiration was resumed for a short time, followed by its cessation and death.

The infant was pallid throughout, and the pulse could not be felt at the wrist. Autopsy showed that in neither case had death occurred by asphyxia; the symptoms also pointed to cardiac failure. In both instances there was an enlargement of the thymus and hyperplasia of the lymphatic tissues.

Sudden death during or after the administration of chloroform is also well recognised as a possible accident in this condition of body; ten cases have been collected by Kundrat, and there are others recorded.

An opportunity is rarely given to diagnose the condition during life, but dyspnoea of unknown origin, dulness over the manubrium sterni, and unaccountable enlargement of the accessible lymph-glands are suggestive of the status lymphaticus.

What the cause of death is in such cases is debatable; there are two hypotheses: one of these that the thymus presses either on the trachea or the heart or on the vagus or phrenic nerves; the other that the condition is toxæmic.

To review the rival hypotheses: the thymus is of greatest size at two years of age, at which time it weighs a trifle over an ounce. At birth its weight is less by half. The weight is constant until the advent of puberty, when the gland atrophies. Under pathological conditions it may reach as much as 4 or 5 ounces. According to Schale it requires six or seven times this weight to compress the trachea, but as opposed to that statement there is the fact that Kœnig and Purucker relieved the dyspnœa by operation on the thymus in young infants aged three weeks and three and a half months respectively.

Lange reports a trachea constricted from pressure. Banmann relates the case of a child of nine months who was admitted into hospital with all the signs of suffocation of some twelve hours' duration, and who subsequently died. Its thymus weighed $4\frac{1}{2}$ ounces, and the condition was thought to have possibly originated by tracheal obstruction from the position of the organ which stretched across the trachea, but there was no anatomical evidence of pressure. But Paltanf points out that if the fatal event be due to tracheal pressure there should be post-mortem evidence of such a condition similar to that encountered in cases of enlarged thyroid. He also emphasises the fact that before the fatal occurrence these patients appear to be quite healthy, and that in adults the death could certainly not be ascribed to pressure. Hypoplasia of the arteries with consequent narrowing of their lumens and enlargement of the heart occurred in some of the cases; in others the heart was small. Autopsies in those who have suddenly succumbed to this condition do not favour the view of a sudden swelling of the thymus sufficient to exercise dangerous pressure on the trachea or on the pneumogastric or phrenic nerves. The possibility of dyspnœa being due to pressure on the phrenic or pneumogastric nerves yet requires to be proved.

On the other hand, those who hold that the condition is due to sudden toxæmia from acute poisoning emanating from the lymphatic system are supported in their views by the results obtained by experiments.

Thus Lochte found that hyperthymization of the blood first lowered the blood pressure from paralysis of the vaso-constrictor

nerves, and later directly stimulated the heart, and quickened the pulse. An overdose brought about death by asphyxia.

Further, according to Flexner, mydatoxins and cytotoxins introduced into the circulation bring about hyperplasia of the spleen and lymph glands indistinguishable from the condition found in the status lymphaticus.

The more plausible theory is perhaps on the whole in favour of lymphatic poisoning with a sudden access of the toxin in fatal cases. It is possible also that a hypersensitiveness of the heart is produced by the toxins, that is to say the heart is readily depressed by some unusual stimulus, such as a trifling febrile attack or some dyspeptic disturbance. This hypersensitiveness would explain also the ease with which death occurs during chloroform administration. We can state from experience that the cardiac muscle in a death under chloroform in such a case was quite healthy microscopically, so that no gross lesion is present.

We have noticed an enlarged thyroid where death occurred within twenty-four hours from the onset of symptoms of tuberculosis, a point in favour of the theory that only a very slight stimulus is sufficient to cause death. Musser and Ullom quote a case of status lymphaticus where there were microscopical changes in the heart, the death arising from broncho-pneumonia. Heart failure appeared quite early in the case, too early they think, for toxæmia from the staphylococcus infection from which the child suffered, and they attribute it to lymphatic toxæmia. Of course it is possible that when some depressing secondary cause is at work for longer than a few hours, such as would be the case during chloroform administration, the heart-muscle may more readily degenerate than in a normal child.

The condition known as status lymphaticus is of considerable importance, and now that widespread interest is being aroused in the condition, further facts should be forthcoming which will throw light upon the true nature of the disorder.

Excerpta Puerilia.

The provincial meeting of the Society for the Study of Disease in Children.—This annual meeting took place at Bristol on Saturday, June the 18th.

Cases and morbid specimens of great interest were shown in the out-patient department and in the wards of the Children's Hospital, St. Michael's Hill, by the physicians and surgeons : Dr. Bertram Rogers, Dr. Cecil Williams, Dr. Fortescue-Brickdale, and Dr. Theodore Fisher, Mr. C. A. Morton, Mr. H. W. Kendell, and Mr. H. Elwin Harris. After tea, which was served in the hospital, an adjournment was made to the medical library, where, with an attendance of some fifty members and visitors, the meeting proper was held under the presidency of Dr. Theodore Fisher. Dr. Fisher, in felicitous terms, welcomed the members of the Society to Bristol, and then passed on to the more formal proceedings. Cases and microscopical specimens were shown by, among others, Dr. J. Michell Clarke, Mr. J. Lacy Firth, Mr. Paul Bush, C.M.G., Mr. D. S. Gerrish, and Mr. R. G. Poole Lansdown.

Dinner, which was well attended, was served in the evening at the Clifton Down Hotel, Clifton, the chair being occupied by Dr. Frederick Taylor.

Dr. Taylor, in proposing the toast of the evening, "The Society for the Study of Disease in Children," alluded to the immediate success attained by it at its foundation in 1900, to its steadily increasing membership, and to the fact that it now boasted over three hundred members, with a reserve on the books waiting for election. Its volumes of Reports, of which three had been published, testified to the good work done by it in the past ; the large attendance at its meetings to the interest displayed in the subject with which it dealt ; and its waiting list to its steadily increasing popularity.

Mr. A. H. Tubby and Mr. Sydney Stephenson responded on behalf of the Society, the former foretelling that it would soon be found necessary to limit the number of its members.

"The Officers of the Society" was proposed by Dr. Leonard Guthrie, who drew a harrowing word picture of the physical and mental condition of the over-worked officials. The toast was responded to by the Honorary Secretaries, Dr. George Carpenter and Dr. G. A. Sutherland.

The Children's Hospital and the good work done by it did not escape attention, and Dr. Bertram Rogers responded to the toast.

"The Bristol Medical School" was proposed by Mr. R. Clement Lucas, and the toast was responded to by Mr. Paul Bush and Dr. Markham Skerrit, the latter in his reply alluding to the excellent work done by the 'British Journal of Children's Diseases.'

"The Bristol Royal Infirmary and the Bristol General Hospital" were proposed by Dr. Frederick Taylor, and the toast was responded to by Dr. Shingleton Smith and Mr. R. G. Poole Lansdown.

The toast of "The Visitors" was proposed by Dr. Theodore Fisher, who corrected a statement which had been made by a former speaker as to the 'British Journal of Children's Diseases' being the organ and property of the Society. It was pointed out that the JOURNAL was actively interested in the welfare of the Society, but that it was a separate venture, and controlled by its editor, Dr. George Carpenter. Dr. Michell Clarke and Mr. Munro-Smith responded for the visitors. The latter gave some interesting reminiscences of his experience in children's practice. On one occasion he called in a children's specialist with a successful result, and he was much impressed by his management of an unruly child. His account of the adoption of the specialist's successful methods in the case of a lady patient whom he mistook in the dimly lighted room for a golden-haired child, and what followed, afforded much amusement.

Dr. Fortescue-Brickdale proposed the health of the Chairman, who responded, and this brought a very successful gathering to a termination. Among the London members were Dr. James Taylor, Mr. Richard Lake, and Mr. George Pernet, and among the numerous visitors, Mr. Robert Evan Adlard, Dr. A. F. Blagg, Mr. W. M. Beaumont, Dr. Watson Williams, and Dr. Walter Swayne.

The care of pauper children.—At a meeting of the State Children's Association held recently, the President, the Earl of Crewe, drew special attention to the aims of the Association which have been pursued in the face of much opposition.

At present out of 61,000 children dependent on the State, 22,000 are in workhouses. Such an up-bringing as this is most prejudicial to their future chances in life. The Association is in favour of boarding out the children in small scattered houses in the country, a plan which has proved successful wherever tried, and which particularly guards against the dangers of overcrowding. This system not only produces the most efficient citizens, but in the long run is the most economical to the State.

State Socialism in New Zealand in regard to infant lives.—

Mr. Seddon intends that the State shall, in future, take steps to protect the lives of infants in the Colony, and next session he will endeavour to pass laws with that object in view. Two years ago an attempt was made by Act of Parliament to minimise the decrease in the birth-rate by prohibiting the sale of certain restraints, and now Mr. Seddon intends to save the lives of as many infants as possible by establishing a huge nursery department. That part of Mr. Seddon's scheme which deals with the future welfare of the children can be summarised as follows :

1. The establishment of State hospitals for the treatment of children of poorly-housed working people, the management of the institution to be placed in the hands of trustees.

2. Adoption of the lines laid down in the United Kingdom for the prevention of cruelty to children.

3. The establishment of homes for the daily care of young children whose mothers have to go out to work.

4. Making it illegal to insure children of tender years for sums beyond that which would cover the cost of interment, viz., £5; and

5. Making it illegal for any parent or guardian to commute (capitalise) the weekly or monthly amount payable for the maintenance of a child.

Separate courts and places of detention for children.—The Metropolitan Asylums Board for the last two years have provided remand homes for children who otherwise would have been sent by the magistrates to workhouses. The Children's Committee of the Board now strongly advocate that children should be taken immediately on arrest to a remand home, and thus escape confinement in a police cell, where they would be subject to the evil influences of older criminals. They also expressed the opinion that some suitable provision might be made for hearing the cases of children apart from those of adults, thus separating them from the contamination of the police-courts. The Board has instructed its Children's Committee to draw up a specific scheme for submission to the Home Secretary. Three months prior to this, however, a deputation made urgent representations to the Lord Mayor of Dublin and received a sympathetic reply.

Juvenile courts have long passed the experimental stage. In South Australia one was created fourteen years ago, and it is now on a permanent basis. Its powers have been extended since its creation, and it deals with every offence, except homicide, committed by

persons under eighteen. Australia borrowed the plan from Massachusetts, where it is no less than forty years old, and New York, Chicago, Baltimore, and Denver have adopted it, as well as Continental countries, and there is but one opinion as to its value. Care has been taken in the United Kingdom that after conviction children shall not mix with adults, but there is nothing to prevent contact before the conviction.

Separate courts and places of detention for children are urgently required here, since children may now be brought up for many misdemeanours which are not criminal offences at all. Such modes of procedure would prevent the contamination of youthful offenders by association with criminals and the dissolute. A quiet mode of procedure would eliminate the unhealthy excitement incident to police-court proceedings and to the stages preceding them. Boys and girls contaminated by penny dreadfuls, and whose nervous systems are unhealthily stimulated by other pernicious literature, would find an absence of hero worship directed to them in such prosaic surroundings, and their impressionable companions would be deprived of the incentive to imitate their misdoings.

Meals before lessons.—The London County Council has approved the formation of a Joint Committee to carry on the work in connection with underfed children, and it is to be constituted of four representatives of the London County Council, four representatives of the Committee of Representative Managers, one representative of the London Schools Dinners Association, one of the Destitute Children's Dinner Society, and one of the 'Referee' Fund. The question of providing food for children attending the public elementary schools whenever it is thought desirable has been discussed by some of the borough councils, and Islington, as was announced under a similar heading in the June number of the JOURNAL, has come to the conclusion that local education authorities should be empowered to spend public money in this direction. On the other hand, the experience of the Joint Committee has justified the decision of the School Board that there was no necessity for imposing on the rates the burden of supplying meals. During the season 1903-4, 201 schools had meals on an organised system, and the average number of children fed weekly (that is, two or three times a week for twenty weeks) was 23,842, the number of meals provided weekly being 56,109.

Education of children from a practical standpoint.—The Comtesse de Brieç recently read a paper at the Vrilya Club, the Modern

Gallery, Bond Street, on this subject. The main features of her address were that more attention should be given to the practical training and education of children; that the present system was in many respects not only faulty but detrimental in the extreme to the present and future welfare of the child. Greater care should be taken in the selection of a nurse, as the impressionable young mind is ever ready to take on good and bad influences. Diet, clothing, exercise of mind and body, and the importance of congenial surroundings also received adequate attention. The main idea of this paper was to draw the attention of intelligent men and women to the absolute necessity which now exists of bringing this subject more prominently before the public.

Abstracts from Current Literature.

Medicine.

Traumatic hysteria in children (*Société de Pédiatrie, January the 19th, 1904*; *Le Progrès Médical*, p. 167).—**Bosc** communicated a case of a boy of fifteen, who had fallen 10 ft. and sustained thereby a slight injury of the leg. He could walk soon after, but before long developed a deviation of the foot, which consisted of equinovarus. He limped a little, and was very tired after doing his work. There had been no previous nervous trouble, but now he presented pharyngeal and corneal anaesthesia, with anaesthesia of the thigh of the affected side; no diminution of the visual field; no hysterogenic zones. The contracture at once disappeared under chloroform; it was completely cured by immobilisation for ten days.

At the same Society, on February the 23rd, **Broca** showed a girl of twelve affected with marked dorso-lumbar scoliosis. She had had a fall, but ran about quite well for four days afterwards. Then she began to limp, and rapidly developed the scoliosis. There were no rickety lesions found, nor hip disease. No other signs of hysteria, although M. Broca considered that that was the most probable diagnosis. A rest of a fortnight had produced no amelioration. He quoted another case, of cervical contracture, which had supervened at once after an injury, in a child, who showed no other sign of hysteria. This was cured by twenty-four hours' continuous extension.

A. ERNEST JONES.

Fœtal achondroplasia (*Société d'Obstétrique de Paris, February the 18th, 1904*).—**Bouchacourt** showed the radiographs of five cases. He included under this title several abnormalities of the skeleton, of intra-uterine production, characterised especially by smallness of the chief segments of the limbs, and by an increase of the size of the head. The most constant sign is the thickness of the bones of the vault of the skull. The long bones, although usually massive, are sometimes irregularly curved, and are remarkably permeable to the Röntgen rays.

A. ERNEST JONES.

Infantilism in Pott's disease (*Société Médicale des Hôpitaux, March the 18th, 1904, La Presse Médicale*, p. 191).—**Pierre Marie** and **André Leri**

called attention to the frequency with which this condition, and particularly relatively long limbs with a relatively small head, was associated with Pott's disease. The genital organs were usually better developed than the rest of the body, although occasionally atrophy occurred there also. The condition was of Lorain's type, and was neither due to thyroid atrophy nor to genital atrophy, nor to any cachectic state. It could not be correlated in severity with any particular localisation of the lesion, but was most marked in cases who had developed the spine disease very early in life.

Apert considered that the condition was due to the tuberculous nature of the complaint, and recalled the fact that Lorain had described his cases in tubercular subjects.

A. ERNEST JONES.

Emission of N rays from paralysed muscles (*Société de Neurologie, March 3rd, 1904*).—**Ballet** and **Delherm** give the result of their investigations in a series of cases of paralysis. They employ a screen five millimetres by three, which is placed at one extremity of a hollow lead tube five centimetres long, the other extremity of which is applied to the part under examination. They state that muscles paralysed by an infranuclear lesion (cases of lead wrist-drop, polyneuritis, facial paralysis, etc.) send out rays to a less extent than the healthy muscles of the opposite side. On the other hand, muscles paralysed from a supranuclear or upper neurone lesion (cases of old hemiplegias, spastic paraplegias, etc.), whether they are in a flaccid or a spastic condition, show an exaggeration of the usual phosphorescence as compared with the healthy muscles of the opposite side.

A. ERNEST JONES.

Reflex atrophy of articular origin (*Société Médicale de l'Elysée, March the 7th, 1904; Journal de Médecine de Paris, 1904, p. 122*).—**Denis-Courtrade** discusses the various theories invoked to account for the extensor atrophy so commonly seen in joint disease. Disuse from the fixing of the joint, periarticular inflammation leading to myositis or neuritis, interstitial cedema, and other causes have at various times been thought to explain the phenomenon. Experiments done at Francois Frank's laboratory recently have given the reflex theory a high degree of probability. This theory, originally propounded by Brown-Séquard and Vulpian, claimed that the peripheral irritation caused a lesion in the trophic centres of the cord. If one cuts the posterior roots of a dog on one side, and then causes an articular traumatism on two sides, atrophy supervenes only on the side of the intact roots. Post mortem, however, no organic lesions are found either in the anterior horns or the nerves, which seems to indicate that the process is only a slight one disturbing the function of the cells. The extensor muscles always wasted much more. This may be explained by some experiments of Babinski and Onanoff, which showed a close correlation between rapidity of development of muscles and readiness in succumbing to injury: as a rule the extensors develop more rapidly than the flexors. The author explains the non-correlation between the degree of atrophy and severity of injury by the interposition of another factor—the health of the nervous system. A slight joint lesion will cause great atrophy in a neurasthenic.

There is no qualitative change electrically, and the reaction of degeneration is always absent. When this reaction occurs one should think either of a traumatic neuritis, *e. g.* paralysis of the deltoid from injury to the circumflex nerve, or of a cord lesion causing both the atrophy and joint trouble.

A. ERNEST JONES.

The indications for lumbar puncture (Rachidocentesis) (*La Pediatr.*, 1903).—**G. Silva** bases his remarks on a year's experience at the Clin. Ped. of Padua. He prefers the sitting posture for the operation. Fatal accidents are rare and occur mainly in cases of cerebral tumour. Minor disturbances, such as vertigo, vomiting, headache, syncope, etc., observed by some authors after extraction of the cerebro-spinal fluid, may be avoided by withdrawing not too great a quantity and slowly, through a fine canula, never with aspiration. The diagnostic utility is indisputable: by the direct examination of the fibrin which forms in the liquid in cases of tuberculous meningitis, Koch's bacillus is found in the majority of cases. Rachidocentesis has a palliative effect in many cases. With regard to its therapeutic effect the author asserts that every time the increase of liquid becomes apparent, with definite symptoms, it is necessary to practise lumbar puncture. In the treatment of chronic hydrocephalus it was always successful and not rarely led to cure. The best results were obtained in hydrocephalics, in whom after every lumbar puncture a depression of the anterior fontanelle was observed to persist for four to ten hours. VINCENT DICKENSON.

Fœtal heart-murmurs (*Amer. Journ. of Obstetrics, etc.*, January, 1904, p. 36).—**H. G. Wetherill** examined a woman at about the eighth month of pregnancy and heard a fœtal heart-murmur. The murmur was systolic in time, loudest two inches below and to the right of the umbilicus, and audible over an area about three inches in diameter. The child was born one week later, somewhat cyanosed, with a harsh systolic murmur over the cardiac area, and weighed five and a half pounds. On the twelfth day of life the murmur was unaltered. It was ascribed to pulmonary stenosis. The child was strong and vigorous. Other cases have been recorded. **Hochsinger** (*Die Auscultation des kindlichen Herzens*) quotes two cases—those of Barth and of Hennig. In the former a rough systolic murmur was heard to the left of and below the navel. The child was still-born and presented endocarditis of the tricuspid valve. In Hennig's case a double murmur was heard before artificial delivery in the eighth month of pregnancy, and in the cyanosed infant after birth. It proved to be due to endocarditis of the aortic valves. **Christopher** reported a case to the American Pediatric Society. A murmur was heard in the left iliac fossa at the time of labour, although normal fœtal heart sounds had been heard a month previously. This is curious, in view of the gross anatomical lesions found post-mortem. The infant presented some cyanosis on the second day and died on the fourth. A systolic murmur was heard all over the cardiac area and conducted into the neck. The foramen ovale was patent. The aortic and tricuspid valves showed verrucose thickening. The pulmonary artery took its origin from the aorta just above the sinus of Valsalva. **Hall** (*Archives of Pediatrics*, 1897, p. 905) reported a case in which a rough, blurred, first sound was heard two inches below and to the right of the navel. After birth a systolic murmur was heard, loudest over the junction of the third costal cartilage with the sternum. The pulmonary second sound was accentuated. The murmur gradually faded, and on the tenth day the heart-sounds were normal. He ascribed it to a patent ductus arteriosus which finally became obliterated. EDMUND CAUTLEY.

Case of myositis ossificans (*Société de Pédiatrie*, February the 23rd, 1904; *Le Progrès Médical*, p. 167).—**Lornby** showed a girl aged 8, in an advanced state of this rare disease. The case had been described at the age

of 15 months, by Ménard, to whom it had been taken with the diagnosis of Pott's disease. Now, the ossific nodules were very widely distributed in the muscles and tendons, both of the trunk and extremities. Skiagraphs were shown of the case.

A. ERNEST JONES.

Acute serous pleurisy at three months old (*Journal de Médecine de Paris, February the 14th, 1904, p. 71*).—**Louis Régis** saw a child three and a half months old, which had recently been weaned. It was breathing rapidly, and was very cyanosed. There were signs of an extensive pleural effusion on the left side. The fluid removed was clear; it was not examined bacteriologically.

The writer gives a *résumé* of the literature of pleurisy in infants, and says that this is by far the youngest case recorded.

A. ERNEST JONES.

The value of tannin preparations in the intestinal lesions of infancy (*Dent. Aerzte Ztg., 1904, H. 5, 6, and 7*).—**M. K. Preiss** publishes the results of a series of 150 observations upon the action of certain modern preparations of tannin. The preparations employed were tannigen, tannoform, and tannalbin. They were used in cases of intestinal dyspepsia, acute and chronic enteritis, cholera infantum, and tuberculous and septic diarrhoea. The writer found that tannalbin yields good results in intestinal dyspepsia, acute and chronic catarrhal inflammation of the small intestine, and in tuberculous diarrhoea. The administration of tannigen was invariably attended by negative results. Tannoform afforded relief in a few cases of acute and chronic inflammation of the small intestine, in catarrhal conditions of the large intestine, cholera infantum, and tuberculous diarrhoea. The improvement effected was, however, transient, and only noted in infants of over two to three months of age. No preparation in any way influenced the course of the septic diarrhoeas.

E. P. BAUMANN.

Treatment of infantile diarrhoea by gelatin (*Journal de Médecine de Paris, January the 17th, 1904, p. 22*).—**Weil**, of Lyons, strongly advocates the use of sterilised gelatin. He gives six to twelve grammes a day. It is of value in all cases of infantile enteritis, but not in cholera nostras. Its influence on cases with green, offensive stools is very marked.

A. ERNEST JONES.

Influence of chloride of sodium on the weight of new-born children (*Société de Pédiatrie, December the 15th, 1903; Le Progrès Médical, 1904, p. 9*).—**Nobecourt** and **Vitry** give an account of the use of this substance in eight breast-fed children. Seven of these gained weight whenever they were put on the drug, but not if the dose exceeded one gramme per diem. The authors advocate its addition to the usual diet of infants.

A. ERNEST JONES.

The action of rennet upon the digestion of milk (*Monatsschr. f. Kinderheilk., February, 1904, p. 595*).—**G. Riotondi** discusses the meaning of the favourable results obtained in the feeding of infants by the addition of rennet to milk. It is well known that the formation of large clots is thereby prevented, but the writer does not believe that this fully explains the results. It is probable that it serves wider and more general purposes than merely to influence the process of coagulation. The digestive action of the ferment upon the caseinogen of milk, which it transforms into casein,

is susceptible to two explanations. 1. It may act by modifying the casein in some way and rendering it more easily digestible. 2. It may exert an actual proteolytic action, splitting the caseinogen into two proteid bodies of which one is soluble and easily absorbed from the stomach. The latter view, which was originally propounded by Hamnersten and strongly supported by Haliburton, is confirmed by investigations undertaken by the writer. He finds as the results of his experiments that during the coagulation of milk by means of rennet a new proteid body, which remains dissolved in the milk serum, is formed as the result of splitting of the caseinogen. The amount of nitrogen contained in this new proteid body corresponds to about one-tenth of the total nitrogen of the milk. The body so formed must be classed between the native proteins and primary albumoses.

E. P. BAUMANN.

Sudden death by suffocation due to an ascaris (*Journal de Médecine de Paris*, 1904, p. 35).—**Valerien-Georges Negresco**, of Bucharest, reports a case of the above. The patient, a boy of three, had complained of pain in the abdomen, and had had several convulsions in the past month. He suddenly choked, and was thought to be in a fit. Post mortem a dead ascaris lumbricoides was found in the trachea. There are several instances already on record.

A. ERNEST JONES.

Atrophy of one kidney (*Prag. med. Wochenschr.*, April, 1904, No. 15, p. 183).—**A. Rohn** describes the case of a female infant, aged 3 months, who died of marasmus secondary to chronic gastro-enteritis. At the necropsy, the right kidney was seen to be remarkably small. On section the surface presented a pale yellow appearance, only small areas of normal parenchyma being evident. The right ureter was patent, although somewhat narrowed. The right renal vein was completely occluded by an old thrombus. The thrombus was continued into the inferior vena cava, and extended for a short distance in both directions along the course of that vein; the lumen, however, was not completely occluded. The renal arteries on both sides, as well as the left renal vein, were not thrombosed. On histological examination the discoloured portions of the kidney were seen to consist of areas of necrosed and shrunken tissue. The veins were completely filled with an organised thrombus. The arteries were healthy. At the borders of the diseased and relatively normal renal tissue there was a well-marked inflammatory infiltration with early interstitial connective-tissue formation. The left kidney presented no morbid appearances. In the inferior vena cava the thrombus was beginning to organise, a narrow channel being present at one side. The author considers the case to be one of hæmorrhagic infarction of the kidney, with subsequent necrosis and inflammatory reaction, following upon thrombosis of the renal vein. The occurrences of such thrombotic changes in the veins is not unknown in children suffering from severe gastro-intestinal disturbances, but the thrombosis is generally much more recent than was here the case. Had the child lived, the kidney would probably have become organised, and in due course shrunken into a fibrous nodule. This state of affairs is occasionally found at necropsies upon adult bodies, and the facts of the case above related should be borne in mind in endeavouring to explain the causation of the condition.

E. P. BAUMANN.

Weight variations in scarlet fever (*La Presse Médicale*, March the

23rd, 1904, p. 185).—**Garnier** and **Sabareann** have made a series of investigations on this point by weighing patients on alternate days and constructing charts. The conclusions they reach are: For the first two days the weight is stationary or increases a little: at the fall of the temperature the weight falls several kilogrammes very rapidly; then, so long as the patient remains on a strict milk diet, the weight is stationary or falls a little: after increasing the diet a considerable increase in weight occurs, and in a few days the patient may have passed his original weight; after the third week no further increases take place.

A. ERNEST JONES.

Discussion on infantile scurvy and its cause (*La Clinique Infantile*, January 1, 1904, p. 13).—Seven cases of scurvy were shown at the Société Médicale des Hôpitaux. Two had been fed on milk pulverised at a high temperature, two on humanised milk, one on Allenbury's food, one on oxygenised milk, and one on milk sterilised at a high temperature. The six first-mentioned presented the ordinary features of scurvy, and rapidly ceded to treatment, *i. e.* fresh milk with orange or lemon juice. The interest of the meeting centred on the seventh case, shown by **Aviragnet**, and which had the following history: The child was fed, from six weeks, with sterilised milk (Gallia Co.) exclusively. All went well up to nine months, when it contracted influenza and a sharp attack of bronchitis, attended with pallor, pain, and pseudo-paralysis of the right leg. The gums were swollen and bled; there was a large hæmatoma on the right thigh, and one on the right chest. Hæmaturia was present, and the temperature rose to 104° F. This latter fact was explained by a patch of broncho-pneumonia at the left apex. Most of the symptoms subsided, but the hæmatomata went on to suppuration, and were incised. The femur became the seat of osteo-myelitis. In the discussion which followed it was agreed that scurvy might be accounted for by the use of (1) milk humanised by Gärtner's method, (2) milk sterilised by oxygen, (3) milk pulverised at a high temperature and pressure, and (4) various proprietary foods. Aviragnet expressed the opinion that milks deprived of their anti-scorbutic properties, of which the pulverised milk was the most satisfactory example, should not be given for long without adding some corrective to the food. However, both he and Variot concurred in thinking that milk, sterilised at 108° C., and which had been subjected to no previous manipulations, was quite free from danger. Variot doubted whether the case quoted, which had been fed on pure milk sterilised at 108° C., was really a case of scurvy. He himself regarded it as a case of osteo-myelitis, following on broncho-pneumonia. He pointed out that it possessed some atypical features. Barlow himself had never described a case terminating in osteo-myelitis. The one-sided paralysis and high temperature were not characteristic of scurvy, and hæmaturia was of most exceptional occurrence. The diagnosis was important, since the reputation of the milk in question depended on it.

A. T. BARNARD.

Abductor reflex of the foot (*Société de Neurologie*, January 7, 1904; *Archives de Neurologie*, p. 170).—**Hirschberg** and **Rose** described a reflex, consisting of adduction and internal rotation of the foot, provoked by excitation of the inner border of the foot, especially at the level of the big toe. The reflex is only present in lesions of the crossed pyramidal tract, and is nearly as constant as Babinski's extensor response. In many cases it is present when this response is either absent or badly marked, and then is of great diagnostic value.

A. ERNEST JONES.

On the common causes and effects of the return of the mother's milk to the colostrual state during lactation (*Riv. di Clin. Pediatr.*, February, 1904).—**Spolverini** comes to the following conclusions: The most common causes which induce the return of the milk to the colostrual state, which are referable to the mother are:—

- a. Internal { Mental { Violent and unexpected emotions, prolonged agitation and annoyance.
 { Physiopathological { Menstruation, pregnancy, disease of the mother.

b. External.—Irregular or suspended lactation, disease of infant.

Neither the age of the woman, social condition, nor period after parturition have any appreciable influence in its production. The intestinal disturbances in the child must be considered as the effects of the abnormal condition of the milk in having re-acquired the colostrual characteristics. In some cases, however, there may be concurrent factors. Such disturbances are of short duration and from a practical point of view do not require, except in rare instances, even a temporary interruption of lactation. Further researches are necessary to explain the cause of unsuccessful lactation without cause appreciable to ordinary methods.

VINCENT DICKINSON.

Therepeutic indications of paraglandin (*Suppl. Policlinico*, 1903).—**Aporti** experimented with this substance in the medical clinic of Parma, and concludes that out of the many substances extracted from the supra-renal capsules only that secreted by the medullary part contains the vaso-constrictor principle. Paraglandin thus extracted from the supra-renal gland of the ox is a white liquid, tending to yellowish, of sweetish taste, and besides maintaining the cardio-vascular tone and acting directly on unstriped muscle producing contraction and increased tonus, also acts through the diastasic ferments and through lecithinic phosphorus on organic metabolism in the shape of a ferment which regulates biochemical processes and prevents auto-intoxication. In Addison's disease it only produced a respite in the fatal course of the illness. In a case of cyclic albuminuria the result was negative. In a case of ophthalmic hemicrania of vaso-paralytic origin thirty to forty drops taken at the onset of the attack were sufficient to abort it. In a case of gastroectasis and gastrorrhœa, paraglandin was capable of producing in a few days diminution of the gastric area and disappearance of the gastrorrhœa. In various cases of constipation it produced a surprising effect where the cause lay in intestinal atrophy, but in cases of excessive contractility of the muscular fibres the condition of the intestine was made worse.

Cattaneo (*Comunicazione alle Assoc. Med. Chir. di Parma*, November, 1903) also made experiments with the same substance on five children affected with gastro-intestinal atrophy, two were also rachitic. The maximum dose was forty drops four or five times; no untoward symptoms were noticed. In four there was an increase of 100 to 300 grains in ten to twelve days. In all five the atrophy and rickets were notably benefited.

VINCENT DICKINSON.

A case showing Giese's syndrome (*Obozrenie Psichiatrit*, vi, 1901; *Centralblatt f. Nervenheilkunde*, N. F., xii, 1901).—**W. M. Bechterew** relates the case of a girl of nineteen, who since infancy had slowly developed the following symptoms:—Cerebellar ataxy, difficulty of speech, tremor of the limbs, rigidity, and mental debility. There was no affection of sensation.

Friedreich's disease was excluded, as there was no muscular ataxy, no choreic phenomena, no nystagmus, and the knee-jerks were preserved.

The case differed from those which Giese described as showing a "New Form of Hereditary Nervous Disease" (*Deutsch. Zeitschr. f. Nervenkrankh.*, xvii, 1900), in having no exaggeration of the deep reflexes and no local paralyses, although the peripheral portions of the limbs were clearly backward in development. The mental debility and tremor of the limbs, accompanied by a gait resembling that seen in cerebellar ataxy, made one think of a cortical affection of the brain probably associated with a degeneration of the pyramidal tract and descending cerebellar tracts.

A. ERNEST JONES.

Surgery.

Congenital hypertrophic stenosis of the pylorus (*Brit. Med. Journ.*, 1904, I, 1073).—A. J. Cleveland, of Norwich, reports a case in a male baby who died at the age of three months. The symptoms began on the fourteenth day of life and consisted of characteristic vomiting, constipation, dilatation of the stomach, and wasting. The child came under observation at the age of two months. A week later well-marked peristalsis and a succussion splash were noted. The pylorus was not palpable. Death took place in another three weeks. Convulsions, probably of the nature of tetany, were present during the latter weeks. On post-mortem examination the pylorus presented the condition typical of this affection, except for a constriction in the middle of its length. The intestines were almost empty, and there was scarcely any fat anywhere. I have little doubt this child might have been saved by operative measures if the parents would have consented. He died at about the usual age from simple starvation. Tetany is not uncommon in the later stages. It may recur after treatment by pyloroplasty if it has been present before operation. In cases treated by lavage it also may occur.

EDMUND CATTLE.

Dyspnoea from plugging of the glottis by the uvula (*The Australasian Medical Gazette*, vol. XXIII, No. 3, p. 116). Fred. J. T. Sawkins records an unusual cause of laryngeal obstruction. A child, twenty months of age, was seen suffering from dyspnoea caused by laryngeal obstruction. The tonsils were large and the fauces were congested. Inhalations of steam relieved the urgent symptoms, though there was still difficulty of breathing. Some days later the child was again brought for advice, was admitted into hospital and tracheotomy was performed on the same day. A tube was worn for two months, and it was found to be impossible to dispense with it. Repeated examinations of the larynx under an anæsthetic were attended by negative results. On the last occasion a glimpse of a rounded body slipping into the interval between the epiglottis and larynx was obtained, and on lateral inspection by the laryngeal mirror this was seen to be the tip of the uvula. The uvula was amputated, within forty-eight hours the tracheotomy tube was removed, and the child subsequently breathed without any difficulty.

THEODORE FISHER (Bristol).

Contribution to the study of infantile cystitis due to B. Coli (*Riv. di Clin. Ped.*, April, 1904).—C. Combe says this affection is far from rare, especially in very young infants, and produces in severe cases a condition of continued fever, remittent or intermittent in type, anorexia, thirst, sometimes vomiting, notable facial pallor, somnolence and apathy which alternate with

periods of restlessness and excitement. The urine is always very acid, and has often a focal odour. The duration varies for weeks, and even for months. Infection may take place through the blood, intestines, or urethra. A case is described of an infant of twenty months: history of gout in maternal aunt and grandmother; father obese. The child was pallid and excitable, and on January 6, 1903, became more restless, temperature rising to 39° C. Urine turbid, very acid, traces of albumen, crystals of uric acid in sediment with polymuclear leucocytes, vesical cells, some red blood corpuscles, and *B. coli*. Milk diet with alkaline water of oliveto, infusion of *uva ursi* 5 per cent., with salol, benzoate of sodium and urotropin failed to influence the malady. The fever continued with morning remissions. The child cried when micturating, and for this warm baths were ordered. From January 17 to 19, high fever continued, the tongue and lips dry, pulse small and frequent, condition grave. An injection was made on January 19 of Celli-Valenti anticeccal serum 10 c.cm., and repeated the following evening. On 21st the condition was much better: child slept after food. Temperature went down to 37.7° C. Urine showed agglutinated masses of *B. coli*. A vesical injection of 1 per cent. protargol was given daily. After an attack of urticaria and a subsequent relapse of the cystitis, cure resulted on February 17, but health was not completely established for some months. Seeing the marked improvement after the injection of the Celli-Valenti serum, and the agglutination of *B. coli* observed in the urine the day following the injection, and also the agglutination of the same *B.* in broth cultures to which the serum was added, the author believes himself justified in describing this case as one of cystitis caused by the dysenteric variety of *B. coli*. VINCENT DICKENSON.

Hermaphroditism (*Journal d'Accouchements*, January the 31st, 1904; *Journal de Médecine de Paris*, 1904, p. 81).—**H. Lambinon** gives an interesting *résumé* of this subject, chiefly from the historical point of view. His article is *à propos* of one by Neugebauer, who saw six cases in 1903.

A. ERNEST JONES.

Tuberculous arthritis in the young (*Medical Press and Circular*, May 25, 1904).—**Robert Jones** advises that in bad cases of hip disease where there is marked flexion, adduction and shortening, the deformity should be reduced under an anæsthetic, tenotomy being performed in addition if it is found necessary, and the limb fixed in a Thomas's splint. He says that he has never seen general tuberculous infection occur as the result of this treatment. He believes that it is a bad thing to open all abscesses at once, and does not do so unless the skin is involved or some other reason renders it imperative. When an abscess is causing symptoms, however, he opens it at once. In those cases where, as the result of old hip disease, bony ankylosis has occurred on both sides, he advises that osteotomy should be performed upon the worst side only, and a piece of metal foil placed between the ends of the bones in order to prevent bony ankylosis from taking place after the correction of the deformity. Particular attention is drawn to the importance of fixing the leg in a slightly abducted position in those cases where bony ankylosis is aimed at. In the treatment of tuberculous disease of the wrist-joint exception is taken to the common practice of treating these cases with a flat anterior splint, as after its use ankylosis occurs in a position of slight flexion, and in this position the grasp of the hand is weak, whereas if the hand be fixed in a slightly hyperextended position the resulting grasp is good. P. LOCKHART MUMMERY.

Congenital occlusion of the œsophagus (*Birmingham Medical Review*, February, 1904).—**William Thomas**. In a very interesting article upon this rare condition mention is made of nineteen recorded cases. That the condition is not so rare as might be supposed is shown by the fact that seven cases occurred in sixteen years in the Copenhagen Lying-in Hospital, where between 1100 and 1200 parturient women are yearly treated. Mr. Thomas points out that there are two varieties of this condition:—(1) Those in which the upper and lower portions of the trachea are united by a fibrous cord; (2) those in which the lower part of the œsophagus opens into the trachea or one of the bronchi. The latter seems to be by far the more common of the two conditions. Abnormalities of the rectal end of the alimentary tract are not infrequently found to be associated with this condition. In all the cases the upper part of the œsophagus was found expanded into a large sac formed of its normal membranes and terminating in a rounded extremity with smooth walls. The condition is usually first noticed on the second day of life, and most of the cases prove fatal within a few days. The only form of treatment that seems to afford any chance of success is an immediate gastrostomy. Mr. Thomas mentions one case in which a child lived for fourteen days after being operated upon for this condition, but this appears to be the only recorded case where an operation has been performed. He points out that the earlier recognition of the condition and prompt treatment might lead to greater success being attained.

P. LOCKHART MUMMERY.

Four cases of operation for strangulated inguinal hernia in infants (*Lancet*, May 28, 1904).—**R. C. Dun** reports four such cases. The first was a male child seventeen days old; symptoms of strangulation had been present for three days, and attempts to reduce the hernia by taxis were unavailing. At the operation a coil of small intestine was found to be strangulated, and as the surface was still smooth and glistening it was returned into the abdomen and a radical cure performed. The child died thirty-six hours later. At the necropsy no peritonitis was found, but a band formed by a Meckel's diverticulum was present two feet from the ileo-cæcal valve. The band was two inches long and was partially constricting the intestine. There was also ulceration of the intestine at the site of strangulation. The second case was a male infant five weeks old. Symptoms of strangulation had been present for twelve hours before operation. A coil of small intestine was found to be strangulated; this was returned and a radical cure carried out. There were no bad symptoms and the patient made a good recovery. The third case was a male infant four months old. Strangulation occurred while the child was wearing a truss, and as the hernia proved irreducible an operation was performed eighteen hours after the onset of symptoms. The child got over the operation, but died from exhaustion following acute diarrhoea on the nineteenth day. The fourth case was a male infant twelve months old. Symptoms of strangulation had been present for ten hours. The child made an uninterrupted recovery. The writer points out the comparative rarity of strangulated hernia in infants, and lays stress upon the great importance of early operation in such cases when taxis has failed.

P. LOCKHART MUMMERY.

Septic ear infections in nurslings (*La Clinique Infantile*, January 16, 1904, p. 51).—**Barbillon** remarks on the extreme frequency of septic

ear infection in nurslings. For two years he has examined the tympanic cavity in all autopsies in infants. He concludes: (1) Overcrowding in hospitals is an important factor in the causation of septic infection of this cavity. (2) The infection spreads from the naso-pharynx. (3) Its occurrence is extremely frequent and happens soon after admission into hospital. Suppuration of the middle ear was found after death in the large majority of the cases which had been resident in the hospital for some little time, even if no symptom of the condition had been present during life. (4) Many affections thought to be due to intestinal infection and treated as such are really due to infection of the nose and ear. In addition, dyspepsia and other gastro-intestinal disorders may be due to this infection. In the cases showing suppuration of the middle ear the tympanic membrane was most often intact. Twenty-five per cent. of the cases were bilateral. The diagnosis of ear infection is difficult in the absence of perforation. It should be suggested by anorexia, absence of thirst, profound apathy, and non-response to such therapeutic measures as generally prove efficacious when the digestive tract is at fault.

A. T. BARNARD.

Treatment of nævi by radium (*La Clinique Infantile*, January 15, 1904, p. 59). - **Holzknrecht** has experimentally treated with radium, with encouraging results, a "port-wine stain" covering nearly the entire surface of the upper limb. The metal was made to act on eight separate circular areas, each $\frac{1}{2}$ cm. in diameter; each exposure lasted ten minutes. The effect was the appearance of eight little circles of normal colour on the background of the telangiectasis. If this result is permanent, then the treatment of nævi by radium may be regarded as superior to all other methods. The author considers that the stain disappears owing to a degeneration of the cells of the vessel walls, especially of the intima, whereby the dilated capillaries become obliterated. In explaining the action of radium in other pathological processes, it must be remembered that Pfeiffer and Friedberger have experimentally shown that emanations from this metal arrest the development of certain pathogenic microbes (typhoid, cholera). Holzknrecht has also had encouraging results in the treatment of psoriasis and lupus with radium.

A. T. BARNARD.

Foreign body impacted in the pharynx of an idiot (*La Clinique Infantile*, February 15, 1904, p. 102). - **Sebillian**, in the autopsy on an idiot girl, aged 10, found a bony substance 2 by $1\frac{1}{2}$ cm. fixed in the right lower extremity of the pharynx between the posterior wall of the larynx and the prevertebral muscles. This foreign body had given rise to a local gangrenous condition of the adjacent muscles and to lung troubles, which ultimately proved fatal. The larynx was uninjured, but it was displaced. Ten days previous to entering the hospital the parents had noticed that the child had difficulty in breathing and could not eat. She had been subject to fits all her life, could talk little, and had not been able to learn to read. She was brought to the Hôpital des Enfants Malades in a semi-comatose condition, from which she partially recovered at times to ask for water, which she could only swallow with difficulty. She was very restless. Temperature 104° F.; pulse 128. She had occasional attacks of asphyxia lasting three to four minutes. There was some retraction of the substernal area. Behind there was some dulness and tubular breathing at the left lower lobe. The child died thirty-six hours after entering the hospital, asphyxia being the immediate cause of death. In this case diagnosis would have been possible

had a skiagram been made. A foreign body in the œsophagus had been suggested, but taking the skiagram was deferred on account of the extreme restlessness of the patient.

A. T. BARNARD.

The moment for operative intervention in croup ('*La Clinique Infantile*,' March 1, 1904, p. 157).—**Marfan** draws attention to this subject and asks: "When should we interfere?" He would operate in all cases of asphyxia, however slight the chance of saving the patient may appear. Relatives should be warned that success is very doubtful, but still many cases, apparently moribund, have been saved by tracheotomy and intubation. Still, if the medical attendant has any option, it is not right to delay matters to the point of extreme asphyxia, when the chances of success are certainly least. He next inquires as to the best moment for operation? Bouchut counselled awaiting the advent of asphyxia, which is marked by the appearance of cutaneous anaesthesia. To this the writer raises two objections: (1) the child's resisting power is reduced by the dyspnoea and cyanosis; (2) the after-danger of emphysema, leading to broncho-pneumonia, is greater the more the child has battled for air. The most favourable time for operating is when there is evidence that the air passages must become blocked if nothing be done. Marfan judges that this stage is reached when the inspiratory effort has been extreme and without respite for the space of about an hour. This rule must be modified, to some extent, according to different temperaments and the amount of distress present. Also it is justifiable to temporise, in spite of great dyspnoea, if the patient has had an injection of anti-toxin thirty hours or more before, provided the pulse remains good, since the serum takes thirty-six to forty-eight hours to act. Meantime relief may be given by damp cloths about the neck and thorax; the patient should be carefully watched, and the surgeon be prepared for instantaneous operation. After six years of age immediate measures are not so necessary, since the glottis is relatively larger, and the danger consequently less. Calet de Gassineourt's sign for denoting on-coming asphyxia is the cessation, on auscultation, of the vesicular murmur. Bayeux operates when he finds the sterno-mastoid contracting actively. These signs, however, are only of value when permanent, and will be found to correspond in time to Marfan's before-mentioned sign of permanent inspiratory distress. There are two contingencies which call for immediate tubage or tracheotomy, *i.e.* (1) when there are prolonged attacks of suffocation in a young patient with feeble and irregular pulse, and in whom the serum has not been injected thirty hours. The danger here is not that the patient may die in such an attack, but that he may suddenly pass into the stage of asphyxia without a previous stage of dyspnoea; (2) one may have to interfere in patients who have been treated with serum forty-eight hours or more previously for the reason that the membrane is being detached *en masse* (instead of liquefying or crumbling as is usual) and blocks the larynx, suspended from a single point of attachment. Here immediate relief may be given by introducing the tube.

A. T. BARNARD.

Intussusception in infants ('*Congrès National d'Obstétrique de Gynécologie et de Pédiatrie*,' April 7, 1904; '*La Presse Médicale*,' p. 237, 1904).

Grisel read a paper on this subject, inquiring especially into the questions of aetiology and treatment. The affection is much rarer in France than in England. Of 300 cases 68 per cent. were under one year old, the fourth to the seventh month being by far the commonest age. The age influences the site, thus:—In infants under one year old the ileo-cæcal variety occurs in

82 per cent. of the cases; in children over this age in only 37 per cent. The enteric variety, on the other hand, increases in frequency with age, occurring in only 5 per cent. of the cases in the the first year, and in 30 per cent. of cases over this age. The writer lays stress on chronic appendicitis and the presence of Meckel's diverticulum as important factors in children, and an enterocolitis, consequent on errors of diet, in infants. Chronic intussusception never occurs in infants, and is rare in children. It is preceded in over half the cases by chronic appendicitis. Immediate laparotomy was the only treatment considered justifiable in either condition.

Arnoux mentioned a case due to a mass of ascarides.

A. ERNEST JONES.

Reviews of Books.

LES LÉSIONS EXPERIMENTALES DU SYSTÈME NERVEUX SYMPATHIQUE INFLUENT-ELLES SUR LA PÉNÉTRATION DE LA TOXINE DIPHTHERIQUE ET SUR LA RESISTANCE ORGANIQUE? Dr. E. DAVID, Professeur à l'Ecole de Médecine et de Pharmacie de Limoges. Mémoire Couronné par l'Académie de Médecine. Prix Pourat, 1903.

IN this paper the author endeavours to prove that lesions of the sympathetic system favour the absorption of diphtheritic toxin, and also that the same lesions diminish the resisting power of the organism to infection by reducing the production of antitoxin. His method consists in excising the cervical sympathetic on each side in a series of animals, and subsequently injecting the toxin into the region where vaso-motor paralysis is produced. At the same time a series of healthy animals are injected with similar doses of the same toxin.

The results of these two series of experiments are compared with regard to the time of onset of the symptoms of intoxication, the time of death of the animal, the intensity of the lesions produced in the body by the toxin, and the state of the blood.

The first group includes 36 experiments, in 18 of which the animals had been sympathectomised, the remaining 18 being healthy animals. The figures representing the results of these experiments have been added up, and the grand total appears as follows:

Non-Sympathectomised Animals.

No.	Total W'ts.	Hour of appearance of symptoms.	Hour of death.
18	23,019 grms.	374 hr. 32 min.	499 hr. 20 min.

Sympathectomised Animals.

18	23,222 grms.	372 hr.	494 hr. 45 min.
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It is argued that, as the total number of sympathectomised animals lived about $4\frac{1}{2}$ hours less than the total number of non-sympathectomised animals, and as their symptoms appeared about $2\frac{1}{2}$ hours earlier, the animals operated upon had less resistance than the normal ones, and that the incubation and duration of the infection were less in the former than in the latter. The next point brought out by the author is that the lesions in the organs of the sympathectomised animals are less intense than those in the normal animals.

This may be accounted for by the remark that the former died rather earlier than the latter, and therefore the toxin had not so long in which to act. Finally it is pointed out that there is a fall in the number of red blood-corpuscles and an increase in the number of white corpuscles in the healthy animals subsequent to the injection of the toxin, but that there is a *greater* fall in the red and a much *less* rise in the white corpuscles in the sympathectomised animals. In the former case the polymorphonuclear cells, and in the latter the lymphocytes preponderate. The average difference in the diminution of red corpuscles in the sympathectomised and healthy animals is about 1300 per cm., and in the rise of the white cells about 382 per cm.

The conclusion formed is that the smaller degree of leucocytosis in the sympathectomised animals leads to a diminished production of antitoxin and, therefore, a more rapid onset of death in these animals. This conclusion is, of course, based on the assumption that Metchnikoff's theory of immunity is correct.

On analysing the cases it is seen that it was by no means a uniform occurrence for the sympathectomised animals to die at an earlier period than the normal animals, and moreover that there was a considerable difference of time between the deaths of the normal rabbits. For example in experiment 4, rabbit 2, weighing 1300 grms., died in 15 hours 30 minutes, whereas rabbit 4, weighing 1300 grms., died in 18 hours, each having received 1 c.c. of the same filtered broth culture of diphtheria bacillus.

On the average a sympathectomised animal died about fifteen minutes before a healthy one.

In reality, therefore, there appears to be no practical difference whatever between the times of deaths of the sympathectomised and normal rabbits. All animals of the same species do not react in exactly the same degree to a given toxin, and in the case of diphtheria one can guarantee the death of an animal on some particular day, but at what exact hour or minute it will die it is impossible to foretell.

It is therefore evident that the differences between the times of death in the above experiments are not sufficiently great for any useful conclusions whatever to be drawn from them.

With regard to the post-mortem lesions it is rather difficult to understand how it is possible to detect a difference in the organs of two animals, one of which has died fifteen minutes before the other, each having been ill from twelve to fifty hours.

Since the remaining conclusions depend for their existence upon whether the sympathectomised animals did or did not die before the normal animals, it is easily seen that this paper is open to a considerable amount of adverse criticism.

CHAS. BOLTON.

AIDS TO SURGERY. By JOSEPH CUMMING, M.B., B.S., F.R.C.S. London: Ballière, Tindall, and Cox, 1904.

THE author of this small volume disarms the reviewer of the obvious criticism on all such publications by stating in the preface his conviction that surgery can only be learnt in the wards. The clinical subjects are least of all suitable for the method of presentation undertaken in this series, the design of which is of course to aid the student in sufficiently charging his memory for examination purposes. From this point of view the book is a very successful addition to the series, and has evidently been compiled with much care and from the most reliable sources. To satisfactorily con-

dense a subject such as this is no easy task; the author has throughout successfully brought out the facts of most importance, and his grouping of these facts is clear and to the point. Apart from debatable matters of practice, there are a few statements which call for remark. To withhold mercury until the appearance of secondary symptoms has decided the diagnosis of syphilis is by no means a rule to be invariably followed. In a modern classification of tumours one expects to find some mention of the endotheliomata and some notice of the fact that carcinomata arise from certain of the structures originating in mesoblast. On p. 96 the statement is made that Hodgkin's disease is characterised by marked blood-changes, consisting of a great increase of leucocytes, and is distinguished from lymphatic leucæmia by the character of the leucocytes; both these statements require correction. In trephining for middle meningeal hæmorrhage, the point usually to be selected is $1\frac{1}{2}$ inch behind the external angular process and $1\frac{1}{2}$ inch above the zygoma, not $1\frac{1}{2}$ inch above the angular process. In the description of concussion and compression of the brain, the differential diagnosis between the two conditions might be made clearer. Pancreatitis is a well-recognised condition which might have been mentioned. Direct inguinal hernia is said to occur only in old people; in reality, most of the examples occur between the ages of forty and fifty. The student should be taught to-day that a strangulated hernia requires operation, and that the so-called taxis is rarely justifiable; he should also be taught that disinfection of the sac is an important item of the operation. It is not necessary here to discuss methods of treatment recommended. The points to which attention has been drawn in no sense contradict the opinion that the book is reliable and suitable in every way to the purpose for which it is intended.

K. W. MONSAREAT (Liverpool).

HANDBOOK OF DISEASES OF THE EAR. By RICHARD LAKE, F.R.C.S., Surgeon to the Royal Ear Hospital. Pp. x+232, with 3 coloured plates and 54 figures in the text. Publishers: Baillière, Tindall and Cox, London. Price 7s. 6d. net.

NOTHING but the highest praise can be accorded to this addition to the literature of otology. Mr. Lake has made good use of his extensive experience in aural work in producing this useful and concise 'Handbook of Diseases of the Ear.'

It is noticeable that although the first chapter is devoted to a brief description of the more important anatomical facts, yet no mention is made of the physiology of hearing; this, however, which at first sight looks like an omission, may be intentional on the part of the author, by reason of the obscurity and variable theories on the subject. The chapter on the estimation of the acuteness of hearing is especially well written and valuable; the many useless tuning-fork tests usually mentioned in text-books being wisely left out; the importance of correct use of tuning-forks for the diagnosis and prognosis of deafness cannot be over-estimated, and it is this which is perhaps the most difficult and confusing part of otology to the student. The description of the so-called radical mastoid or complete post-aural operation which is done so extensively nowadays for chronic suppurative conditions is probably the best which can be obtained.

In conclusion, mention must be made of the excellent illustrations distributed throughout the book and of the valuable appendix of prescriptions.

R. STURGEON COCKE.

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Original Articles.

THE WIGHTMAN LECTURE.*

HEREDITARY BIAS AND EARLY ENVIRONMENT IN
THEIR RELATION TO THE DISEASES AND DEFECTS
OF CHILDREN.

By R. CLEMENT LUCAS, B.S., F.R.C.S.,

*Senior Surgeon to Guy's Hospital and Consulting Surgeon to the Evelina Hospital
for Children.*

IT has been said that Galileo lived before his time: it would be more true to say that young Wightman lived before his time. Had he not suffered from diphtheria ten years before the introduction of antitoxin he would very probably be with us to-day. He was a good example of how the individual is built out of hereditary forces. Mentally he resembled his parents closely in being unselfish and generous. He was also a good example of how sometimes the strength of a family may be centred in one sex. He was the only boy and died at the age of seven. His sister is healthy and strong. Cobden similarly only had one boy, who died at the age of fifteen; he

* Delivered before the Society for the Study of Disease in Children, July the 15th, 1904.

had five daughters, all of whom are still alive and well. It has been said that an excess of girls leads to extinction of families. Galton gives thirteen instances in which the marriage of a peer with an American heiress led to the birth of girls, but of no son. In this way the custom of going to America for healthy wives to revive our effete aristocracy only leads to the wiping out of the latter. Again, longevity is certainly hereditary. Recent statistics show that short-lived families tend toward rapid extinction. On the other hand, modern views of disease tend to discredit the importance formerly attached to heredity. It is instructive to compare the opinions of, say, fifty years ago with those of to-day on this subject. In 1840 pityriasis versicolor, or chloasma, of the chest was thought to be hereditary, whereas we have long known it to be an infective disease. Sir Thomas Watson thought that consumption was entirely a question of diathesis, and scoffed at the notion of its being contagious. Even a wife whose family had been free from consumption for generations, who contracted phthisis after nursing a husband dying of the disease, only proved to Watson how long may be the latent period in the generation before the taint declares itself. Some years ago at the Evelina Hospital I investigated the family history of a number of cases of infantile tuberculosis, every variety being included. In every case one or other parent had phthisis. Are, then, the old observations relating to the tuberculous types of patients quite valueless? I think that the pearly sclerotics, the sharp refined features that may be seen in any wasting disease, may be produced by the tuberculous process. This may be transmitted to the offspring, so that in a few generations who had suffered from the disease we would have the type occurring in a healthy individual, and merely indicating a diminution of resisting power, perhaps to all disease. Baumgarten accounts for the occurrence of infantile tuberculosis by assuming that the bacillus penetrates the sperm-cell or ovum and remains latent for some years. He quotes the analogous instance of pébrine, in which Pasteur worked out the mode of infection. Experiments done on hens' eggs support this contention. On the other hand, the bacillus has never been seen in the germ-cell. It will be seen that this hypothesis is not so hopeful as the one which attributes the condition to contagion, and so we must ask for further evidence before accepting it.

The case of leprosy is not dissimilar. This disease has been treated by segregation from time immemorial, though from some of the curses invoked on generation after generation, it may be surmised

that the biblical authors considered it to be hereditary. The Indian Commission failed to find any evidence of this. Hansen found leprosy in the descendants of natives who had emigrated to America. The manner of spread of the disease is still unknown, but I am hopeful that it will soon be worked out, because it took fifteen years to work out the mode of spread of malaria after its organism had been isolated. All we can at present say is that some families seem to show less resistance to the disease than others.

In 1844 malaria was described by a lecturer at the Royal College of Physicians as a climatic diathesis. We now know that it is due to an organism, and there can be no reasonable doubt that it is conveyed by means of mosquitoes. Our belief in the influence of heredity in disease has been rudely shaken by such instances as these.

In the case of syphilis it is doubtful whether the disease can be transmitted beyond the first generation. Incidentally I may express my opinion that "transmitted syphilis" is a better term than "hereditary syphilis." Hutchinson claims that the germ-cell of either parent may convey the infection. Be that as it may, we know that the disease is doubly disastrous when inherited from both parents. In one instance of this I met with there were eight children born dead. I remember a blind boy and girl marrying, both being congenital syphilitics, and their offspring was free of the taint. Hutchinson reports eight other such instances, in none of which was there evidence of syphilis in the children. The later children of syphilitic parents are more robust than the earlier ones. It seems as if a new type of the disease was produced by intermarriage, and that leads to physical deterioration.

The question of rickets is a more complicated one. This can be artificially produced in animals, a fact which has been taken advantage of to form new breeds of dogs, *e. g.* the Dachshund and field spaniel. In 1881 I suggested that cases of microcephaly should be so treated as to develop rickets, with the idea of enlarging the head so that the brain should have room to grow. It seems certain that rickety children are often cleverer than other children, a fact which is difficult of explanation. It may be that rickets will be shown to be of microbic origin, and then the question of heredity will have been disposed of. I consider rickets and syphilis the two great causes of deterioration in London.

The rheumatic and gouty diatheses act differently. Rheumatism is now leaving the group of hereditary disease, owing to its connection with a definite micro-organism. I believe that the chapter of medicine on joint disease will have to be re-written owing to the

discovery of the importance of the infective factor. I would remind the Society that gonorrhoeal pyæmia is not unknown in children. Gout may be regarded as the antithesis of rickets, the one being produced by over-feeding and the other by under-feeding, the one being therefore a disease of the rich and the other of the poor. Three fourths of the families of the leisured classes are said to be afflicted with gout. The rubicund John Bull of 'Punch's' pages is a typical example of a gouty person. Gout is the sole surviving example of the chemical theory of disease, but it is possible that time will show that even this is an infective disease, and therefore not an hereditary one.

To take next the subject of cancer, Paget long ago showed that 5 to 6 per cent. of cancer cases gave a history of cancer in their families. It is known that cancer attacks unrelated persons who are under the same conditions; for instance, some years ago I recorded the occurrence of three cases of cancer which occurred in the same house. These are distinct grounds for doubting the belief in the hereditary transmission of cancer.

In the nervous system we have the clearest evidence of the influence of heredity in disease. Fletcher Beach says that of idiots 51 per cent. have a history of mental defects in the family, 20 per cent. of epilepsy, and 16 per cent. of alcoholism. Taking the problem from the other side, Langdon Down asserts that 3 per cent. of lawyers' children are mentally defective, 4 per cent. of doctors', and 18 per cent. of clergymen's. Galton states that of the members of all the learned societies of London, 11 per cent. are the children of lawyers, 9 per cent. of medical men, and 6 per cent. of clergymen. A pleasanter aspect of the subject is that dealing with genius. Galton has clearly shown that great ability is the rule in the children of geniuses. There is an interesting connection between genius and stature. 142 cases were over 5 feet 9 inches, 125 were below 5 feet 4 inches, whilst only 74 were between these heights, *i.e.* were of the average height in this country. Another instance of heredity, besides that of genius, is afforded by Gerrish's observations on five generations in which paresis of the anterior tibial muscle appeared between the ages of twenty-two and twenty-six. Karl Pearson has shown that intelligence is bred, and not created by education; so that mental characteristics as well as physical are hereditary. He has formulated a law concerning the probable deviation of brothers from the normal.

Deaf mutism is probably hereditary. In some cantons of Switzerland this occurs in 1 in every 206 of the population. The law governing the transmission of hæmophilia is well known, but it is

not so well known that colour blindness and polydipsia obey the same law, *i. e.* they are strictly limited to the males, though transmitted only by the females. Coloboma and certain other ophthalmic defects are also transmissible.

Coming to external manifestations, we have a large number that are hereditary. Ichthyosis was shown 18 times in the family in some cases shown at London in 1731. Some members of the family were about London in 1820. Psoriasis is similarly transmissible, and this may the next generation be converted into ichthyosis.

Supernumerary toes and webbed fingers are hereditary. For five generations one family has shown instances of both. Darwin mentions three cases in which these digits recurred after amputation, and explained this by a retrogression to the habits of lowly ancestors, in which, *e. g.* the crayfish, this is a frequent phenomenon. Similar cases have been reported later. These malformations tend to die out with the infusion of fresh blood by marriage. Absence of the patella has been transmitted for three generations, as has absence of the second incisor tooth. Many years ago I pointed out that the absence of these teeth often preceded the appearance of a cleft palate in the offspring. I now wish to record two cases in which feeble development of these teeth in the mother foreshadowed the appearance of a cleft palate in the child.

An interesting chapter in the book of malformations is that dealing with what are known as intra-uterine amputations. A good example of this phenomenon was shown at the Bristol meeting of this Society; in this instance both lower limbs and one upper were missing. The usual theory on the subject is that these limbs are amputated by the umbilical cord, and this theory was thought to be supported by a case in which a deep groove was found to have been formed around the abdomen. Careful inquiry, however, elicited the fact that the groove was not at the level of the umbilicus, but below it. Another objection to the theory is the doubt as to whether strain sufficient to amputate a limb would not have so impeded the circulation in the cord as to cause death. Again, why should the cord cut off limbs, but never the head, seeing that the cord is so often wrapped round the neck at birth? A further point that has struck me is the fact that these deformities are usually multiple, which is difficult to understand, as the cord would have been relaxed once the limb had been amputated. It is hard to believe also that such an agent would pick out the three central fingers and leave the thumb and little finger or *vice versa*. Amniotic adhesions have lately been

suggested as an explanation, but I think that the phenomena are much more probably a manifestation of errors of development. To me they suggest a defect very far back in the growth of the child, and especially a general cause acting widely, not a local cause. Possibly incompatibility of the sperm-cell and ovum may explain the question. There seems to be a general failure of control in the process of development, for we see the combination of overgrowths, *e. g.* supernumerary digits with defects in growth. Perhaps defective food in the organism may act as a factor, for we know how important such an agent is. An instance is the production of Shetland ponies, through generations of bad feeding, which cannot be converted into racehorses, however well fed. There is still room for more work to be done at such interesting and important questions. In conclusion I beg to again thank the Society for the honour they have done me in asking me to deliver this, the first Wightman lecture.

A CASE OF BILATERAL SEPARATION OF THE LOWER EPIPHYSIS OF THE RADIUS.*

By J. W. THOMSON WALKER, M.B., F.R.C.S.,

Assistant Surgeon to the North-West London Hospital, and to St. Peter's Hospital for Stone.

THE introduction of the X rays has added very materially to the accuracy of diagnosis in bone injuries, but it is probably in the examination of epiphyseal lesions that this means of diagnosis has proved of greatest value.

The following case is of sufficient interest to merit record, the more so that there are few skiagraphic records of such cases. William J. W—, aged 15 years, fell from the back of a railway van on to the street, alighting on his outstretched hands.

He was conveyed to the North-West London Hospital, and there examined by the House Surgeon, Mr. E. A. Wright, who found both hands apparently dislocated backwards. Some amount of swelling had already taken place when he was examined. The carpus appeared to be dislocated on to the back of the radius, the lower end of the latter projecting on the front of the wrist. The condition was similar on both sides. Reduction was easily effected and was

* Shown at a meeting of The Society for the Study of Disease in Children, Friday, May the 27th, 1904.

accompanied by indistinct crepitus. Anterior splints were applied. On removing the splints three weeks after the injury, Mr. Wright was dissatisfied with the appearance of the wrists and referred the case to me. The following condition presented itself on examination. The hands viewed laterally showed the "silver fork deformity," but to a less degree than in Colles' fracture. There was radial inclination of both hands, which was more pronounced on the right side. The head of the ulna was prominent on both sides. A finger-breadth above the wrist line bounding the thenar eminence there was a prominent transverse ridge in the line of the radius which could be distinguished as a sharp edge covered by the wrist tendons, and was best felt by pressing the finger from below upwards along the front of the wrist. On the dorsum the carpus was prominent and was found to be bounded by an abrupt depression over the back of the radius. The position of the styloid process of the radius appeared to bear its normal antero-posterior relation to that of the ulna, but as both wrists were injured there was no standard for comparison. On measurement the tips of the radial and ulnar styloid processes were equidistant from the humeral condyles on the left side, and the right radial styloid process was a quarter of an inch higher than the ulnar styloid process. There was thus shortening of the radius on both sides, that on the right side being most marked. A skiagram taken from the inner side of each wrist showed that the epiphysis of the radius was separated and displaced backwards so that the anterior edge of the cartilaginous plate rested upon the middle of the lower end of the shaft of the bone and the posterior half of the epiphysis projected backwards beyond the shaft. A ledge of bone had been broken from the posterior edge of the lower end of the shaft and displaced backwards with the epiphysis. The lower epiphysis of the ulnar was uninjured on either side.

Under an anæsthetic the epiphyses were found to be so firmly united to the shaft in their abnormal position that it was impossible to dislodge them.

Seven weeks after the accident the inflammatory swelling around the wrists had disappeared and the deformity was less noticeable. The abduction of the hand was still more marked on the right side and the measurements were unchanged. The ridges formed by the lower end of the shaft of the radius on the anterior aspect of the forearm and that formed by the epiphysis on the dorsum were less sharp and prominent. The movements of the wrist joints were perfect and could be carried out without difficulty or pain. In this

FIG. 1.



FIG. 2.



case there had apparently been a complete backward displacement of the lower radial epiphyses at the time of the accident, and this having been reduced, the partial displacement, seen in the skiagram, remained. The rapid firm union of the cartilaginous disc in its new position is what usually occurs in such cases. It is satisfactory to learn from the experience of others that the deformity in these cases may be expected to disappear completely and leave no impairment of the movements of the wrist. This certainly appears to be taking place in this case even after the lapse of seven weeks.

The serious question of the arrest of growth of the shaft of the bone with consequent distortion of the limb must always arise in these cases. So far as I can ascertain there is no very precise knowledge of the factors which govern the arrest of growth in separation of the epiphyses. Severe comminution, destruction of the soft parts, and suppuration are naturally followed by impaired activity of the injured epiphysis, but in simple detachment of the radial epiphysis the after result varies considerably.

The radius has been stunted in growth after simple separation with little or no displacement, and in other cases, where the epiphysis has been completely displaced, the injury has not interfered with the full development of the bone.

It is, therefore, impossible to say in a case like that just described whether arrest of growth with its serious deformity may not take place.

A CASE OF VALVE OBSTRUCTION IN THE URETHRA, WITH SECONDARY CHANGES IN THE URINARY ORGANS, IN AN INFANT.

BY CHARLES A. MORTON, F.R.C.S.,

Professor of Surgery in University College, Bristol; Senior Surgeon to the General Hospital and the Hospital for Children and Women.

ALTHOUGH there are many specimens in museums of conditions somewhat resembling the one present in this case, clinical records of such cases seem to be rare. There is also one very important fact illustrated by this case, *i. e.* that the obstruction being valvular, with the valve sloping towards the bladder, a very serious obstacle may be present to the passage of urine, and yet a catheter may enter the bladder without the slightest difficulty.

A baby aged 13 months was sent to me at the Children's Hospital with a history of three months' wasting and vomiting, and

a distended abdomen. This distension was mainly due to flatulent distension with hard scybalous masses, but a central hypogastric swelling suggesting a distended bladder was also present. The infant passed urine in apparently natural quantity, however, and I did not pass a catheter for a day or two after admission. When I did so I used a Jacques No. 3, and this entered the bladder quite easily, and withdrew several ounces of urine, and caused the hypogastric swelling to disappear. Blood and pus were noticed in the urine during the next twenty-four hours, and the temperature rose considerably. The temperature had been 101° and 102° after admission before the catheter was passed, and probably pus had also been present in the urine at that time, though I have no note of it. A large faecal mass had to be cleared out of the rectum, and also scybala higher in the bowel were removed with enemata. The infant died a week after admission. The catheter passed was boiled, and every precaution taken to prevent infection by its means, and I think there is no doubt that cystitis and pyelitis were present at the time it was passed.

At the post mortem a dilated and greatly hypertrophied bladder was found; the ureters were so dilated as to resemble small intestine; and both kidneys were much enlarged from hydronephrosis, but a considerable amount of renal tissue remained. The mucous membrane of the bladder was plum coloured from hæmorrhage, and had exudation of lymph on it: hæmorrhages were also present in the mucous membrane of the pelvis of each kidney, which contained purulent urine. A small valve-fold was found in the roof of the urethra just beyond the vesical orifice, directed downwards and backwards, so that although the passage of urine would be much interfered with, a catheter would not be obstructed.

THE TREATMENT OF ANÆMIA IN CHILDREN BY IRON-VITELLIN.

By GEORGE CARPENTER, M.D. (Lond.).

A MUCH discussed question, and one of practical importance to the clinician, is the comparative values of organic and inorganic iron as reconstructives of hæmoglobin and red blood-cells in conditions associated with anaemia in children. Present-day physicians rely almost entirely upon inorganic iron as represented by Bland's

preparation, citrate of steel wine, or reduced iron; but those who have studied the question from an experimental standpoint—physiological chemists and pharmacologists—assert that all of the arguments are in favour of organic iron. This difference between the clinician's opinion and the chemist's opinion is due to the fact that what the former has experimented with clinically as organic iron is not regarded by chemists as true organic iron.

Viewed from the clinical standpoint, the principal disadvantage of inorganic iron is that it is decomposed by the hydrochloric acid of the gastric juice into iron chloride, which is astringent to the gastric mucous membrane; this explains the digestive disturbances and constipation so frequently observed in patients taking iron. Organic iron, however, is not changed by hydrochloric acid, and has the additional advantages of being more easily and completely assimilated, and is in the chemical form required by the tissues. Types of true organic iron are hæmoglobin and hæmatin, and for a time these were administered in anæmia, but without benefit; this was explained by the elaborate investigations of Professor Cloetta, of Zurich, who showed that hæmoglobin and hæmatin, given either as salts or in the form of blood, are not assimilated by the human organism. Grawitz has proved clinically that not only are these preparations made from animal blood of no value, but that they are dangerous because they lead to demonstrable degenerative changes in the red blood-cells of patients to whom they are administered.

The albuminoid compounds of iron—represented by the peptonates, albuminates, pepto-manganates, etc.—have been shown by clinical experience to be no better than the ordinary pharmacopœial forms of inorganic iron. Von Ziemssen first proved this by extensive comparative studies at his clinic; Professor Stockman, of Glasgow, not only corroborated this observation, but proved clinically that manganese was absolutely useless in the treatment of anæmia.

When one reviews the results of the authoritative experimental and clinical researches on the subject of iron medication, it is clearly apparent that the desiderata of a satisfactory iron compound for clinical use are these:

- 1st. It must be organic in form.
- 2nd. It must be unchangeable by hydrochloric acid of the gastric juice.
- 3rd. Its clinical effects (on proportion of hæmoglobin, red corpuscles, and on the subjective symptoms of anæmia) must be appreciable.

Within the past two years a number of well-known clinicians

have reported their experiences with iron-vitellin, a compound of iron in definite chemical combination which chemists regard as true organic iron. For some time past I have employed iron-vitellin in hospital and private practice, and I briefly record some clinical histories which seem to indicate that this remedy is destined to occupy a wide field of usefulness as a tonic for children. The one fact which struck me was the rapidity with which iron-vitellin produced beneficial changes in the familiar and common cases of secondary anemias of childhood. In the cases herein mentioned the results noted were produced within a period of five weeks, which is a much shorter time than I have ever seen uniformly good results produced by iron or any of the usually employed tonic drugs in a similar class of cases.

The following cases from my note-books are cited merely to illustrate the rapidity of action of the drug, not only upon the blood constituents, but upon the subjective and objective symptoms.

CASE 1.—A female child of 12 years. Had recently recovered from an attack of rheumatic fever, which had left her decidedly anæmic. Blood examination revealed red corpuscles 2,250,000 per c.mm. and hæmoglobin 54 per cent. Iron-vitellin was ordered in three-drachm doses, to be given thrice daily. Her general condition under its administration rapidly improved, and the anæmia fast disappeared. Ten days after beginning treatment the blood count showed red corpuscles 4,100,000 and hæmoglobin 78 per cent. Two weeks later the red corpuscles were 4,700,000 per c.mm. and the hæmoglobin 93 per cent. The girl was of good colour, appetite and digestion were normal, and there were no subjective or objective symptoms of anæmia.

CASE 2.—W. C—, aged 1 year and 2 months. The chest is pinched in a little below the nipple level, but apart from this there is no evidence of rickets. There are no indications of syphilis. Spleen four fingers below the costal margin, and the accessible lymphatic glands a trifle enlarged. Complexion sallow. Blood count: hæmoglobin 50 per cent.; red corpuscles 4,100,000 per c.mm. = 82 per cent.; colour index '6; white corpuscles 8,200 per c.mm. = ratio 1 to 500; no abnormal corpuscles seen in the films, nor myelocytes. Iron-vitellin, one drachm thrice daily, was ordered. Four weeks after treatment was instituted the hæmoglobin rose to 80 per cent. The skin and mucous membranes were normal, spleen scarcely palpable, and the general appearance of the child had undergone a most striking change for the better.

CASE 3.—Sydney B—, aged 1 year and 4 months. Is rickety, but this is not marked. Abdomen rather pot-bellied. Spleen two fingers and liver one finger below the costal margin. Accessible lymphatic glands a trifle enlarged. Pale. The gums round the lower central incisor teeth are reddened. Petechiæ all over. Hæmoglobin 50 per cent.; red corpuscles 3,114,500 per c.mm.=63 per cent.; colour index .8; white corpuscles 17,950 per c.mm.=ratio 1 to 175. Poikilocytes; granular degeneration of red corpuscles; nucleated red corpuscles. Polychromatophilia. This baby was given iron-vitellin, one drachm thrice daily, for four weeks, and under its use greatly improved in colour and appearance. Unfortunately blood counts could not be made.

CASE 4.—C. D—, a boy of 9 years. Recently recovered from a bad attack of diphtheria; with pale mucous membranes, a trace of albumen in the urine and some epithelial casts. Blood count: hæmoglobin 40 per cent.; red cells 2,250,000 per c.mm. Iron-vitellin was ordered, a tablespoonful thrice daily. A week later hæmoglobin 55 per cent.; red corpuscles 3,100,000 per c.mm. From this date the albumen disappeared and the urine was free from casts. Three weeks later the hæmoglobin was 95 per cent. and the red corpuscles 4,500,000 per c.mm.

CASE 5.—William T—, aged 1 year. Very rickety; craniotabes; "snuffles" ever since birth; very anæmic. A 7½ months child. Spleen normal. Treated by mercury. In spite of the use of this drug the spleen was found to be enlarged two fingers below the costal margin some six weeks later and Parrot's nodes were commencing to form. Hæmoglobin 50 per cent.; red corpuscles 4,100,000 per c.mm.=82 per cent.; colour index .6; white corpuscles 25,000 per c.mm.=ratio 1 to 164. Treated with iron-vitellin thrice daily. Two weeks later the hæmoglobin was increased to 83 per cent., and a marked improvement was noticed in his general appearance. He was a hospital out-patient and was subsequently lost sight of.

In the treatment of the above-mentioned cases no other tonic medication was employed, as I desired to observe the effects of iron-vitellin alone, unassisted by any of the usually employed tonic remedies. Of course, whenever possible, the good effects of proper food, fresh air, and other hygienic measures were taken advantage of; but it is only in private practice, and not among out-patients,

that such aids to treatment are available; the benefit, therefore, may, I believe, be correctly attributed to the drug itself.

In the treatment of secondary anæmia in children, one learns by experience not to lay too much stress upon the increase of the red blood-cells and hæmoglobin as an index of the extent of the improvement in the general condition. A child with a diminished amount of these blood constituents will often show marked increase of red corpuscles and hæmoglobin after the administration of the ordinary pharmacopœial forms of inorganic iron; the increase may reach a certain point, even close to the normal standards, and the patient still suffer from the symptoms of anæmia. This is, however, according to my observations, not the case when iron vitellin is the form of iron employed. In these latter cases the red cells and hæmoglobin increase very rapidly during the first few weeks of treatment, after which the effect of these constituents is less marked; but the one point which is quite striking is the pronounced general tonic and reconstructive action which the drug seems to exert and which seems to be independent of its action upon the blood constituents. My observations on the use of iron-vitellin as a tonic for children seem to justify the following conclusions: It produces prompt increase in the red corpuscles and hæmoglobin; it improves the appetite, and does not disturb digestion or produce constipation; it is acceptable to the palate, and has a general influence upon nutrition which I have never observed in the use of any other form of iron. One point which I have noted is that the tonic dose for children (one to two teaspoonfuls in wine-glass of water, as at present advised) is too small in many cases, and that the dose may be often increased advantageously to a half-ounce three times daily.

PHYSICAL EDUCATION.*

By SIR GEORGE KEKEWICH, K.C.B., D.C.L.,

Late Secretary of the Board of Education.

I UNDERTOOK to address you to-day, in opening this section, on the subject of the physical education of our children. It is a wide one, and one that can hardly be dealt with satisfactorily in the limited time at my disposal, and I feel that I can only touch to-day the

* An address delivered at the Folkestone Congress, Royal Institute of Public Health (Section for Child Study and School Hygiene).

fringe of the matter—for physical education is by no means synonymous with physical training or physical exercises, but comprises the whole of the physical “bringing up” of our children. It includes the conditions under which the children live, both at school and at home—it includes also prophylactic measures against physical injury and disease, and the treatment of physical defects.

Physical exercises are necessary, but are but a small part of the whole of physical education. They have not been recognised as a part of ordinary education until a comparatively recent period. Fifty years ago such exercises were almost wholly absent from our elementary schools; in the higher schools the usual form of physical training, if it existed at all, was military drill—taught by an old sergeant or corporal—together with single-stick, fencing, boxing, and so forth for boys; and dancing, backboard, and what was called “deportment” for girls. There was no system and no science.

Happily a great change has taken place in public opinion as to the value of physical training, thanks mainly to the action of the great School Boards, who, as you know, from the outset set themselves to the solution of educational problems, and to the working out of the educational salvation of the children, physical as well as moral and intellectual. Thanks mainly to their efforts, physical training has now been adopted as part of the ordinary school curriculum in public elementary schools for both sexes. The High schools have followed suit, and I suppose there are but few public or private schools in this country where *some* attention is not paid to the development of the physique of the scholars.

Various systems of physical training have been devised both for boys and girls, all aiming at the education, so to speak, of the whole organisation of the body, so that no part should profit at the expense of another. No doubt these systems pursue the right lines, and they have, I am glad to say, ousted the old military drill which so long was advocated, mainly, no doubt, on patriotic grounds, but which, both for children and adults, is unscientific and ineffective, and is now recognised as insufficient even in the Army itself.

It appears to me, however, that our knowledge is as yet too empirical to enable us to lay down one absolutely cut-and-dried system for schools, as the Board of Education has endeavoured to do. Room should yet be given for experiment, so long as it is of a character which is at any rate not hurtful to the children. And moreover the amount of physical training desirable varies in the case of particular children, and also varies according as games are

possible or not, and with the amount of time that can be devoted to them. Football, cricket, rowing, and other games, if they may not each of them separately develop every limb and muscle on a perfectly scientific and even scale, yet are unequalled in laying the foundation of the health, vigour, and stamina which form the steam to drive the engine of an energetic life.

A further objection to a uniform system is that all schools are not sufficiently staffed to render it possible. And others are the facts that the ordinary teachers are often not versed in gymnastics, and that the curriculum is often overburdened with literary subjects.

The effect of physical exercises and training varies greatly in different classes of schools. In rural schools such exercises and training are more generally successful than in urban; in High schools and in Industrial schools, more successful than in Elementary schools.

The reason is because there are conditions precedent to success, or rather because physical exercises are in fact only a part, and not the most important part, of physical education. Those are, a reasonable amount of nourishing food and a healthy home. No system of training will ever be fully effectual in schools attended by children from the slums, or by children of parents who are below the line of poverty and unable to provide them with sufficient food. The problem of the improvement of the physique of the people lies deeper than the school. Decent houses and healthy surroundings, fresh air, and sufficient food are indispensable, if the race is not to deteriorate. Not the most scientific system of physical exercises that can be invented will save us, unless the social conditions of the poor can be improved.

A mighty change has been wrought in society by scientific advance, and the progress of commercial and industrial development, which has caused the aggregation of the people into populous centres. And we are paying, not only with bodily deterioration, but with the annual sacrifice of thousands upon thousands of lives, for our ignorance of how to live in cities. Let the State take that in hand, keep the air pure and free from noxious gases, feed the little ones, sweep away the slums—those nests of vice, immorality, and drunkenness, in which it is mere crime to permit children, ay, or parents either, to exist—and then we can begin really to educate, and to expect stronger and healthier children to attend our schools—children who will benefit as they should benefit by physical instruction. At present the good done by the school is often cancelled by the evil, the corrupting influence, the misery, of the home. Let us

remember also that the hours of sleep, than which no period of a child's life is more crucial for good or evil, are often spent in an atmosphere which can only be described as poisonous.

No one can doubt the influence of the home upon physique who has seen the vast difference between the appearance of the children of an Industrial school and those of an ordinary Elementary school in one of the poorer districts of London. In the one the children are healthy, strong, and sturdy, in the other they are pale, weak, stunted. And yet both sets of children are drawn from the same class. The contrast is vivid. Such is the effect of living in pure air, and a proper supply of food.

I am of course far from saying that until the home surroundings of the child are changed it is of little value to make our schools sanitary or to endeavour to perfect our systems of physical training. On the contrary, the very absence of healthy conditions in the home causes it to be more essential that they should be provided in the school. And, if we cannot do what we would, yet whatever we can do in counteracting physical degradation is especially valuable in the case of children living in slum districts. For their school hours are the only part of their life that they pass under healthy conditions. Let them therefore be as healthy as possible.

There are two conditions which must be satisfied by every school-house, and without which the school held in it cannot be thoroughly efficient, however excellent the teaching and conduct of the school may be. One is that it should be sanitary, the other that it should be convenient for teaching purposes. Of these the first is by far the most important, as it affects the health and lives of the children. The State compels every child to attend school for some five hours on five days each week, and it is the bounden duty of the State, therefore, to see that no child is forced to spend that time under conditions inimical to his bodily well-being. Nevertheless there are still many school-houses in this country which are ill ventilated, ill lighted, ill drained, insanitary, and overcrowded. I have myself seen school buildings within this week which many years ago ought to have been cleared off the face of the earth. I have no hesitation in saying that I would rather see the children playing in the streets than being educated ("educated"!!) in such a place. In this respect the Board of Education has not done its duty in the past, and is not doing it in the present. It has not recognised that tenderness to the pockets of the owners of schools is often cruelty to the children.

I will give you an instance of what I mean. I remember that some years ago I discovered that in a great city there were a number

of schools which were held in basements of buildings, half or entirely underground. Some had to be lighted with gas during half the year, some during the whole year; ventilation was impossible. The light of day came only to those children who sat beneath a window, and there was little enough of it. I condemned these basement schools and ordered their closure. But no sooner had I done that than up came a deputation to the Education Department, formed of persons politically important, and denominationally influential, and in the result I was compelled to withdraw my condemnation, and to continue the recognition of many of the schools, though in some cases for reduced numbers of children. Yet all these basement schools, in my view then, and in my view now, failed to comply with the conditions of recognition laid down by the Education Department itself in its own code, which had been approved by Parliament.

The initiative as regards the condemnation of insanitary school buildings now lies rather with the County and Town Councils than with the Board of Education and its inspectors. The results, so far as I can judge, will be very unequal in different localities. Some County Councils have instituted a drastic survey of school buildings in order, as far as possible, to make them suitable and healthy. But I doubt whether these zealous authorities will get much support from the Board of Education, partly because the Board will not welcome the exposure of its slackness in the past and partly for other reasons. Other Councils have taken action in the same direction very weakly and hesitatingly, out of respect for the pockets of the school-owners and regard for the particular class of school which is likely to come most freely under review. Others have taken no steps at all, leaving the initiative now, as it has been hitherto, in the hands of the Board of Education, which, as I have said before, is not likely to take vigorous measures in opposition to the school managers. The county in which we are now sitting is by no means the most zealous in the performance of its duty to the health of the children. The opposition of school managers is in all cases likely to be as strong now as it always has been. I do not speak without book. In 1893 (I think it was) Mr. Arthur Acland, who was then Minister of Education, issued a circular as to school buildings, asking for very moderate improvements, which represented a minimum of necessary sanitation and efficiency. That circular was ridiculed and opposed in every conceivable way by the school managers, and by the so-called educational bodies which represented them. It was with them so largely a question of money, and so little a question of the children's health and physical well-being. So it will

be now. It is high time that the Board of Education woke up from its sleep, and insisted on equal healthy conditions of school life (subject, of course, to the unavoidable inequalities caused by locality) for every child in the kingdom. In the interests of the children no school building which is unfit for school purposes should be allowed to continue because it happens to belong to a particular class of owners. So long as such a policy continues those who sanction it are guilty of sinning against the children and the people. They are promoting weakness and disease and misery by their laxness, as surely as if they favoured such things openly.

The same excuse is often given for the maintenance of unhealthy obsolete schools as is given for the failure to improve the children's home surroundings, viz. that clearing away the schools or the slums would involve the expenditure of a large amount of money. That is of course true, but the money would be the best investment that the State ever made, though the interest upon it would not be paid in actual money of the realm. Our hospitals and infirmaries are crowded at present with cases which are due to neglect in childhood, our poor-rates are burdened with the maintenance of those weaklings who have gone down early in the battle of life. Those who belong to our industrial and commercial classes are often handicapped by lack of energy and stamina, and undue limitation of bodily power, and the productiveness of their labour and the prosperity of the State is limited in proportion.

The policy of the State towards physical education is well illustrated by the old proverb, "Save a penny and spend a pound." It is exceedingly penurious. For political purposes it is constantly ready to spend enormous sums, but not for education, though, happily, education does sometimes profit by political expenditure.

I will give you an instance of one small bit of expenditure which would be most advantageous now, and probably, in the long run, of almost incalculable advantage to education. There is nothing that the educational authorities of the State need so badly as a medical adviser. That appointment has been pressed upon them for years. But doubtless the salary is regarded as too great a burden—it might cost £1000 to £1500 a year. And there is yet another objection—that the advice of the medical officer would necessarily be in the direction of a greater expenditure in safeguarding the health of the children. *Inter alia*, eyesight and deafness of children, defective children, infectious diseases in schools, would come within his purview, and the proper mode of dealing with such matters would undoubtedly cause expenditure. But in the long run such an

appointment would pay the State well, in the increasing well-being of the community.

There is no doubt that such an officer could do much to stimulate the State to perform its duty to the children. That duty has been to a large extent neglected. Take the case of children who suffer from defective eyesight, a matter in which I personally took very great interest when Secretary of the Board of Education. So far as can be judged from investigations which have taken place at present—those made by Dr. Kerr, to whom we are greatly indebted, and other medical men—probably at least half of the children in urban schools, and nearly as many in rural schools, suffer from some kind of defective eyesight, due to deviation of the eye from its normal shape. Such defects not only, if not cared for, interfere with the efficient education of the child, but increase and probably often originate certain nervous maladies. But they are remedial defects as a rule, and it seems almost a crime that in this country, at present, there is no general system prescribed by the State for the inspection of the eyesight of children, and for safeguarding, as far as possible, what is perhaps the most priceless of bodily possessions. In this matter, as in some others, I should judge the foreigner to be in advance of us. We are struck, for instance, with the number of children in Germany who wear glasses, and we are apt to attribute this circumstance to the inferiority of the Germans to ourselves as regards eyesight. I do not know whether such is the fact or not, but at any rate the glasses are a proof that the eyesight of children in Germany is cared for more than it is in this country. We suffer here from a stupid disregard of the teachings of medical science, in consequence of which tens of thousands both of children and adults are subjected to a neglect which is both inhumane and wasteful. Some years ago a committee was appointed by the Education Department to deal with the subject. Its medical member was Dr. Brudenell Carter, and principally through his efforts much investigation took place, and an excellent ‘Report’ was produced. But it went the way of all reports. It was published, a circular or two were issued to managers of schools, and then it appears to have found rest in a pigeon-hole. At all events it has not led to any sound practical steps being taken by the State. In my opinion every child in every school should be periodically submitted to medical inspection by medical officers of local authorities, not, of course, as regards eyesight only—though that would be one of its chief objects—but as regards the whole of the bodily, and to a certain extent also the mental, characteristics of the individual child. Not until this is done can the parents be satisfied

that their children are being cared for in school, so as to make the most and the best of them, and to give them their full chances in the battle of life. And the reports of those medical officers should be brought before the Board of Education and its principal medical officer. The reports would be full of interest, and from the experience that had been gained the Board of Education and its medical officer might crystallise regulations for the guidance of school teachers and local medical officers.

It has been well said, that if he is a wise man who has profited by his own experience, he is a wiser man who has profited by the experience of others.

In many other directions the advice of a principal medical officer and the periodical inspection of schools by local medical officers would be extremely valuable. The inspection of the lighting, warming and ventilation of schools has hitherto been left entirely, or almost entirely, to H.M. Inspectors of Schools, most of whom are unacquainted with science, and who, with one or two exceptions, are not medical men. Surely it is somewhat absurd that in these respects and others the care of the health of the children is left almost wholly to those who have no professional knowledge of the proper conditions for maintaining health. No one doubts the zeal or the ability of H.M. Inspectors: it is not their fault that these things are so, it is the fault of the system. The services of medical officers would be especially useful in the case of the older schools. As regards the newer ones, most of the plans have been passed under review by an architect, who is probably the greatest expert living in the science of school planning; but many of the older schools were built at a time when the State was ready to accept for school purposes any ill-arranged, insanitary building if it would accommodate a certain number of scholars at eight square feet per child. In the erection of those, lighting, ventilation, warming, and sanitary arrangements were little cared for, and in bringing those schools up to modern requirements if possible, and in closing those which are hopelessly bad, medical science would be extremely useful. The lighting in many of the schools is badly placed, and is often either too much or too little. Too much or too little light is equally fatiguing to the eyes of the children and equally prejudicial to their eyesight. As regards ventilation, the purity of the air should be tested in order to see that the inlet of the fresh air and the outlet of the vitiated air are sufficient for the purpose, and effectively used. In too many cases, indeed, at present inlets and outlets are absent, and the ventilation is left to shift for itself, a window being opened

occasionally to reduce the impurity of the air. In connection with ventilation the structure of the schools is, of course, important. It is universally considered, I think, now, that open-roofed rooms are inferior to ceiled rooms. I remember when the Education Department recommended open roofs because they provided a large amount of cubic feet of air per child. But such open roofs unless really effectively ventilated simply provide bags of foul air, which every movement brings down in waves on the head of the teacher and the child.

The temperature of the air should also be periodically tested, and the vexed question of open fires *versus* hot air considered; especially in connection with ventilation.

Prevention of infectious diseases in schools, especially as regards the measures to be taken in regard to non-notifiable infectious complaints; and the closure of schools in consequence of epidemics, would also naturally come within the province of the medical officers; so also would the sanitation of the school offices, which is often in the case of the older schools hopelessly bad.

Finally, I repeat, that money spent in the sanitation of our schools and on the health of our children, is an investment and a most productive one.

The aftermath of our present neglect is the crowding of our hospitals and infirmaries, and the enormous consequent increase of expense to the nation, which, I believe, could be saved if we only adopted reasonable measures on the lines I have indicated. We are losers also in consequence of the resulting lack of stamina, the limitation of strength, in our industrial and commercial workers, which decrease the productiveness of our industries.

On the ground of economy and of our commercial welfare, therefore, as well as on the ground of humanity, I plead for a better system and better care for our children, which will do more to further their welfare than all the sermons ever preached in all the codes ever issued by the Board of Education.

The Society for the Study of Disease in Children.

THE Provincial Meeting took place at Bristol on June 18th, under the Chairmanship of Dr. THEODORE FISHER. Prior to the meeting clinical cases

were shown at the Hospital for Sick Children, St. Michael's Hill, and at the Medical Library, University College.

Some Remarkable Examples of Progressive Muscular Atrophy of the Family Type were shown by Dr. D. S. GERRISH. He had been able to trace the disease back through five generations, and over forty members of the family had been affected. The usual history was that up to the age of 23 years the patients had been remarkable for their physique and muscular strength, but after that age the extensor muscles of the leg began to waste, chiefly the anterior tibials and the peronei. The condition slowly and steadily increased, and by the fiftieth year it had extended to the extensor muscles of the arms. Sensation had never been affected, but the reaction of degeneration was present. Although their hands were affected, the patients retained their grip, but extension became very weak.

Notes of a Case of Congenital Stricture of the Œsophagus were read by Dr. BERTRAM H. ROGERS. An infant about 2 years old began to suffer from vomiting, the condition getting rapidly worse, and being accompanied by emaciation. No definite physical signs of disease were present save much mucus in the lungs, and over-distension of the cervical veins on crying. Test meals showed that most of the food entered the stomach, but part seemed to be retained in the œsophagus. The use of X rays and an œsophageal tube threw little light on the nature of the case. The child died from an increase of the bronchial trouble and dyspnoea. At the necropsy there was found a fairly tight stricture about an inch from the lower end of the œsophagus.

(1) **Congenital Absence of the Left Ear with Facial Paralysis,**
(2) **Congenital Absence of the Left Eye with Cleft Palate and Hare Lip,** and (3) **Intra-uterine Amputation of Three Extremities, with Webbed Fingers on the Hand of the only Limb.** These three cases were shown by Mr. H. ELWIN HARRIS. The last case was a very remarkable one, as both legs were absent from $1\frac{1}{2}$ inches below the hip-joint, and the left arm was removed flush with the shoulder-joint. On the stump of the right lower extremity was a very minute leg in which one could trace a rudimentary knee-joint, ankle, and foot. He did not know any satisfactory explanation of such deformities, and did not think that the theory as to amniotic adhesions was conclusive.

Mr. CLEMENT LUCAS expressed his disbelief in the theories current as to intra-uterine malformations such as maternal impressions, amputation by the funis, etc. He thought that if any satisfactory theory could be formed it would be one in which the nervous system played an important part.

Mr. GEORGE PERNET thought that such a theory as that of maternal impressions was a nuisance to science and should no longer be tolerated.

A Case of Hydrocephalus in which recovery had occurred was shown by Dr. J. MICHELL CLARKE. The illness probably began at the age of 6 months, and the patient had been under observation for some years. Intelligence had never been affected, but there had been marked weakness of the muscles of the trunk and lower extremities. After three years improvement set in, and the only traces of disease visible were the large size of the head and some signs of partial degeneration of the pyramidal tracts. The treatment had been by small doses of grey powder, continued over long periods.

Notes of a Case of Hydrocephalus in which drainage of the ventricles into the subdural space was established was read by Mr. C. A. MORTON. The method of operation was that introduced by Mr. Watson Cheyne, in which a communication is established between the distended ventricle and the subdural space, so that the fluid may be readily absorbed by the meningeal veins. The patient was an infant of 7 months, suffering from congenital hydrocephalus. The first operation consisted in turning down a flap on the right side of the skull below the anterior fontanelle, and introducing a piece of fine rubber tubing, one end of which was passed into the ventricle, and the other between the dura mater and the cortex. The flap of dura mater and membranous skull was then replaced and stitched carefully, so that all oozing had ceased at the end of twenty-four hours. On the eleventh day after the operation the head, which had been much smaller as the result of the operation, again showed signs of enlarging. A few months later the operation was repeated on the opposite side, the head still increasing in size. A small rectangular metal tube was first employed, but as the fluid would not flow through it, a rubber tube was inserted. Some leakage from the operation wound continued for a few days, and the cranial bones were riding. The temperature ran up to 105° on the evening of the tenth day, and the baby died. At the necropsy the brain was found to be lying about an inch from the cranium all round. There was no meningitis, and the drainage tubes appeared to be acting well. Mr. MORTON commented on the fact that although the drainage of the ventricle had been maintained continuously for two months after the first operation, yet the head had increased in size from excessive fluid pressure.

Dr. JAMES TAYLOR congratulated Dr. Clarke on the successful result in his case. It was not often that one saw a case of recovery from hydrocephalus, even after surgical measures, and for a case to recover after medical measures was rarer still. He had noted in some cases of recovery from hydrocephalus that the child seemed abnormally sharp, and above the average in intelligence.

Dr. G. A. SUTHERLAND thought that recovery in cases of congenital hydrocephalus was not so very uncommon, the commonest underlying cause being syphilitic meningitis, and the cure being affected by a prolonged mercurial course. As regards the acquired cases, many of which dated from an attack of non-tuberculous basilar meningitis in infancy, he thought that medical measures were useless, and that the most hopeful line of treatment was by surgical intervention on the lines described by Mr. Morton.

Mr. CLEMENT LUCAS also viewed the condition of hydrocephalus as due to mechanical obstruction, and had made various attempts to remove the ventricular fluid. He had tried to drain the ventricle into the tissues beneath the scalp, but had not found absorption to take place in that region. As regards other operative measures, it seemed impossible at present to descend to the base of the brain, but he thought advances would be made in that direction, for it was only necessary to let the fluid communicate sufficiently freely with its proper arachnoid space for the case to be cured.

Dr. GEORGE CARPENTER agreed that many of these cases were syphilitic in origin, and had seen at least half a dozen of them cured by mercury and chalk.

A Case of Congenital Dislocation of the Hip, which had been under treatment by the Lorenz method for four months, was shown by Mr. J. LACY FIRTH.

Mr. A. H. TUBBY thought that this method would only bring about cures in comparatively slight cases, namely, those in which the head was quite near to the acetabulum, and was of a good shape, and the acetabulum was widely open. The results, so far as they had gone, might be classified under three heads: (1) Actual reposition. (2) Good or fair results. (3) No result at all. He could not state the actual number of repositions, but it was comparatively small. The results which were good or fair were those in which the posterior displacement had been altered to an anterior displacement, but without complete reposition. Such patients walked better, some shortening disappeared, and they lost the lordosis. If anything like excessive force was called for, he thought that it was the surgeon's duty to desist, as when force was employed it was almost certain to result in a bad dislocation.

A Child with Extroversion of the bladder was shown by Mr. PAUL BUSH. A portion of the mucous membrane had "skinned over" under the constant application of a saturated solution of boracic acid. He proposed doing the old operation of turning over an upper central flap, and covering this by sliding two lateral flaps over it.

Editorial.

CONGENITAL STRICTURE OR OCCLUSION OF THE ŒSOPHAGUS.

It seems probable that this condition is not so rare as a study of the literature upon the subject would lead one to suppose. Post-mortem examinations are rarely made upon children who die within a few days of life, and the condition cannot be easily diagnosed without such an examination. It is possible that if all the children who die within a few days after birth from inanition and vomiting were examined, congenital stricture or occlusion of the œsophagus would be found to be present in a certain proportion.

Mr. William Thomas of Birmingham has collected nineteen cases of this condition, and another case has just recently been reported at Bristol by Dr. Bertram Rogers. This brings the total number up to twenty.

There appears to be two varieties of this condition. In one a portion of the œsophagus is contracted, missing, or is only represented by a fibrous band; in the other the upper end of the œsophagus terminates in a *cul de sac*, and the upper end of the lower portion opens into the trachea or one of the bronchi.

There does not seem to be any adequate pathological or embryological explanation of this congenital abnormality. It is not in any way comparable with congenital occlusion of the rectum or anus, since the situation in the œsophagus at which the occlusion is found is considerably below the point at which the stomodæum joins the fore-gut in the process of the development of the mouth and pharynx—that is, unless our present views with regard to the embryology of that region are incorrect. It is an interesting fact that associated congenital malformations do not seem to have been present in most of the cases. The symptoms of the condition are very characteristic. The child swallows greedily for a few minutes, and then a fit of coughing occurs, and the whole or the greater portion of the milk is regurgitated. This takes place whenever the child is given food. An examination of the œsophagus with a finger or a bougie sometimes decides the diagnosis. In those cases where complete occlusion is present the child as a rule dies in about four days after birth, from inanition.

The case reported by Dr. Bertram Rogers in this number of the *Journal* differs in many respects from those previously reported. There was no occlusion of the œsophagus, but a definite stricture existed about one inch from the cardiac end. A certain amount of food found its way into the stomach, and as a result the child lived to the age of a year and ten months. The situation of the œsophageal lesion was lower down than in most of the previously recorded cases, and the symptoms were not marked until ten months after birth.

So far none of the cases have lived. The only hope of saving the child is by surgical interference, though even this does not seem to afford much hope at present.

The ideal treatment would be to establish a communication between the blind ends of the œsophagus as originally suggested by Mr. Holmes. Any attempt, however, at such a proceeding in a baby two or three days old would not be feasible. The only alternative seems to be to perform a gastrostomy, in the hope that by feeding the child through an artificial opening its life might be preserved until a later time, when some attempt could be made to establish the natural channel to the stomach.

In those cases where the stomach end of the œsophagus communicates with the trachea Mr. Thomas has suggested that an attempt might be made to feed the child through this opening after performing tracheotomy. This method, however, would seem to have many objections and to have little advantage over a gastrotomy. Rectal feeding has been tried in several cases, but has not proved of much value. This is rather what one would have expected, and at the best rectal feeding, if successful, could but postpone the fatal issue for a short time.

It must be admitted that treatment of this condition does not seem hopeful, but it is to be remembered that as yet only one case has been operated upon, and perhaps as more attention is paid to the subject it may be found possible to save a few of the cases.

Congenital stricture or occlusion of the œsophagus is at present a very rare condition. So also was congenital pyloric stenosis until attention was drawn to it, since which time quite a number of favourable issues have been recorded. And it seems possible that we may hear of a number of cases of congenital œsophageal stricture now that its importance has been recognised.

Excerpta Puerilia.

The Society for the Study of Disease in Children.—This Society held its Annual General Meeting at the Hotel Cecil on Friday, July the 15th, Mr. A. H. Tubby in the chair. The Council reported that the Society, which started with an original membership of 102 members in 1900, now numbered 304 members. Twelve meetings, all of which were well attended, had been held during the Session. It was announced that the Wightman Lecture for the ensuing session would be delivered by Dr. Henry Ashby, of Manchester. The Treasurer's Balance-sheet showed the Society to be in a sound condition financially.

It was unanimously decided to make certain additions and alterations to the rules, to permit of the appointment of an Honorary Editor of 'Reports,' to be *ex officio* a member of the Council. When the rules were originally drawn up at the conception of the Society,

such an appointment had not been contemplated, and the editing of the 'Reports' was left in the hands of the Honorary Secretaries. Under these rules vols. i, ii, and iii of the 'Reports' had been edited by Dr. George Carpenter. Dr. Carpenter's term of office as Secretary having expired, it was thought advisable, in the interests of the Society, that the 'Reports' should still appear under his editorship for a further term of years.

The names of the following gentlemen, approved by Council, were submitted to the meeting, and the ballot papers having been found in order by the scrutineers—Dr. A. E. Jones and Dr. Fortescue-Brickdale—they were declared by the Chairman duly elected:

Office bearers for the Session 1904-5: Council—Mr. Sydney Stephenson,* Dr. J. Ford Anderson,* Dr. C. W. Chapman,* Mr. H. L. Carre-Smith,* Dr. Percy Lewis (Folkestone),* Mr. Clinton Dent,* Dr. C. N. Gwynne (Sheffield),* Dr. H. R. Hutton (Manchester),* Dr. Alex. Morison,* Dr. Porter Parkinson,* Mr. George Pernet,* Mr. Thomson Walker,* Dr. W. A. Wills,* Mr. Milner Burgess, Dr. Wm. Ewart, Dr. L. G. Guthrie, Mr. A. H. Tubby, Mr. Lockhart Mummery, Dr. Theodore Fisher (Bristol),* Dr. Skelding (Bedford), Mr. Keith Monsarrat (Liverpool), Dr. Hinds (Worthing), Dr. Robert Campbell (Belfast), Dr. W. A. Mackintosh (Stirling). Treasurer—Mr. R. Clement Lucas.* Editor of 'Reports'—Dr. George Carpenter.* Secretaries—Dr. G. A. Sutherland,* Dr. Edmund Cantley, Mr. R. H. A. Whitelocke (Oxford). Those marked thus (*) served on the Council or held office during last session, 1903-4.

The Wightman lecture was delivered for the first time by Mr. R. Clement Lucas at the conclusion of the meeting, the subject chosen being "The Hereditary Bias and Early Environment in their relation to the Diseases and Defects of Children." In his opening address the lecturer alluded to the sad death of the founder's only son many years ago, who succumbed to laryngeal diphtheria in spite of temporary relief afforded by tracheotomy, and in whose memory the lectureship had been inaugurated.

The Annual Dinner, which was well attended by representative London and provincial members, was subsequently held in the Victoria Hall. Mr. Sydney Stephenson, Chairman of Council, occupied the chair.

The toast of "The Society" was proposed by the Chairman, who drew attention to the good work performed by the Society in the past. The accession of new and energetic members enlarged its field of observation and gave promise of valuable research work in the future.

Mr. A. H. Tubby, who responded, thought that the Society had a great future before it. It had already made a reputation, and was deservedly in the front rank of scientific societies. Its members were numerous, and he anticipated a great increase. The Society undoubtedly supplied a very great want, and the striking thing was that such a Society had not been instituted long before—it was certainly wanted.

Mr. R. Clement Lucas considered that the future success of the Society was assured, and he advised young and energetic members to join its ranks and assist in the promotion of its objects.

Dr. Alexander Morison, who proposed “The Officers of the Society,” paid a warm tribute to the work done by the officials, and to its flourishing condition owing to their untiring exertions.

Dr. G. A. Sutherland replied on behalf of the officials, and said that there was a large fund of latent energy amongst the officers which could be drawn upon for promoting the welfare of the Society.

The toast of “The Guests” was proposed by Dr. George Carpenter. Dr. Carpenter regretted the unavoidable absence of Mr. Charles Wightman from the banquet. He called attention to the fact that there were many distinguished medical and lay visitors present. He hoped that the former would, by becoming members, partake of the intellectual feast which was being prepared for them next Session, and that the latter would follow Mr. Wightman’s good example and either themselves found lecturerships or induce their wealthy friends to do so. He reminded the members that a most distinguished traveller and author—Mr. Savage Landor—was partaking of their hospitality that evening. Mr. Savage Landor had advanced further into Thibet than any European, and his adventures there were set forth in his book ‘In the Forbidden Land,’ which doubtless had been read by many of those present. He had travelled in Persia, Afghanistan, and Beluchistan, and had been with the Allies in China. His latest work was ‘Gems of the East,’ which dealt with his explorations in the Philippines, where a warship and a regiment of soldiers were placed at his disposal by the American Government. His well-known researches on anthropometry were founded on valuable material which he had acquired in his travels, and he hoped that the next gift of anatomical specimens for the public benefit would find their way into the Hunterian Museum of the Royal College of Surgeons. Sir Constantine Hohnan, another distinguished guest, was, he said, a well-known and representative member of the medical profession

and a Vice-President of the British Medical Association. Although engaged for many years in private practice in Reigate, he had found leisure among other good works to devote a part of his energies to the necessities of Epsom College, and as to how hard he had laboured in this respect the present flourishing state of that School bore ample witness. He was Treasurer and a Vice-President of the College, and the speaker hoped, in the interests of the College, he would long hold office. For his labours His Majesty the King had recently conferred upon him the honour of Knighthood, a popular and well-merited reward. Not least among the guests was Dr. Appleby Stephenson, Consulting Surgeon to the Nottingham and Midland Eye Infirmary; for had he not given to their Society Mr. Sydney Stephenson, their Chairman and one of its founders?

Sir CONSTANTINE HOLMAN, in reply, said he recognised the important share the provincial members had in founding and maintaining the Society. He laid great emphasis on the fact that the key to success in general practice lay in a thorough knowledge of children's diseases. He spoke with approval of the democratic lines on which the Society was conducted, and which no doubt conduced very largely to its success. He thoroughly believed in the Society, was in accordance with its aims and objects, and would do all that lay in his power to promote its welfare.

Dr. APPLEBY STEPHENSON was pleased with the opportunity which had been afforded him of replying to the toast of "The Guests," and of tendering his support to his son in the chair. He recognised the benefits which had been conferred on the medical profession and the public by the founding of the Society, of which he was an appreciative guest, and he hoped that the endowment of reward scholarships in children's diseases in the gift of the Society would not be long withheld by those who were in a financial position to give effect to this obvious want in its administration.

Dr. ALFRED LINGARD, the Imperial Bacteriologist to the Indian Government, who also was called upon by the Chairman to reply for the guests, reminded Mr. Stephenson that he had recently been elected a member of the Society, and took the warmest interest in its future. He entertained the meeting with some interesting details of his life in the Himalayan Hills. On his next return to this country he hoped he would be able to participate actively in the Society's good work.

Dr. WILLIAM EWART proposed the health of the Chairman. He pointed out how much the Society was indebted to Mr. Stephenson for his work in the past. Dr. Ewart reminded the Society that Mr.

Stephenson was the first to hold the post of Honorary Secretary, and he skilfully piloted the Society through the rocks and shoals which at one time threatened to wreck it. Mr. Stephenson held the post of Honorary Secretary for three years, and at the termination of his office he was unanimously elected Chairman of Council.

Mr. STEPHENSON, in his reply, said that although he was relinquishing office, he would still take an active interest in the Society, and that, as a member of Council, he hoped to be in a position to render good and valuable service.

Mr. George Pernet contributed to the enjoyment of the evening by playing pianoforte solos and by singing songs. Amongst others who acted as entertainers were Dr. Leonard Guthrie, Dr. Alexander Morison, Mr. Clement Lucas, Dr. C. W. Chapman, Dr. Fortescue-Brickdale, and Dr. Appleby Stephenson.

Among the members and guests were Dr. C. W. Chaffey (Brighton), Dr. Frederick Willcocks, Mr. Robert Evan Adlard, Dr. Page May, Dr. Laing Gordon, Dr. Septimus Sunderland, Dr. Skelding (Bedford), and Dr. David Bower (Bedford).

The Royal Institute of Public Health.—Congress at Folkestone.—Section for child study and school hygiene.—The Inaugural Meeting took place in the Pleasure Gardens Theatre on Thursday, July the 21st, when the President, the RIGHT HON. THE EARL OF RADNOR, delivered the Inaugural address.

Professor W. R. SMITH, M.D., D.Sc., President of the Institute, in well chosen words, thanked the President for his interesting address, and hoped that the deliberations of the Congress would be productive of much good to the common weal.

The President of the Section for Child Study and School Hygiene (Sir GEORGE KEKEWICH, K.C.B.) opened the meeting at the Masonic Hall, on Friday, July the 22nd, with an address on "Physical Education," a full report of which appears in this issue.

Dr. STCLAIR THOMSON proposed a hearty and appreciative vote of thanks to the President for his lucid, suggestive, comprehensive, and encouraging address. Sir George Kekewich had been invited to preside over the section owing to his personal eminence and his enthusiasm on the subject of child study.

This was seconded by the Rev. A. L. HUSSEY, M.A., who said that the popular notion about "entrance scholars" being feeble creatures was quite a mistaken one; the case was usually quite the reverse. *Mens sana in corpore sano* was a most true proverb.

Mr. J. H. YOXALL, M.P., said the address was one of admirable

common-sense, full of the presence of enthusiasm, and yet devoid of faddism. As to games, the evil was not that games occupied too much time, but that talking and thinking about games took up so much of the study time—a fault common to all classes of schools and colleges in this country, where class for class we studied less industriously and continuously than abroad.

Mr. J. F. BLACKER, representing the National Union of Teachers, comprising 51,000, wished success to the labours and deliberations of the section. He said that the good work done in school was undone by the insanitary conditions in which the poor lived. The large classes which have to be taught in one room by one teacher still further hindered the good that might result from proper exercise taken in school. Every child that is born should have the opportunity given it to live and escape from degrading surroundings. Sir George Kekewich was the chief agent in giving happiness to the child's school life by the abolition of the cast-iron system of payment by results, and by the opening out of a new outlet of non-educational ideals. Teachers have always done their best for the children. All the organized games of cricket, football, swimming, etc., have been willingly undertaken by the teachers, ungrudgingly and without regard to any other consideration than that of the child. He begged to support the vote of thanks.

Alderman ALEXANDER CAMERON, of Stockton-on-Tees, gave an instance of a school built in Stockton-on-Tees to accommodate 500 children. Some years later that school accommodation was reduced to 367 in order to increase the air capacity for each scholar. This year the Board of Education had increased the accommodation of that school to 544. He urged that politics and denominationalism should be left out of the question of education.

The vote of thanks being carried with acclamation, the PRESIDENT suitably replied, and announced that the honorary secretaries of the section, Dr. Percy Lewis (Folkestone) and Dr. George Carpenter, who had been indefatigable in their efforts to promote the success of the meeting, and at the same time provide for the comforts of the delegates, had procured a large number of interesting papers, which would well occupy the time of the meeting, and he hoped that good results would follow their deliberations, to which he wished hearty success.

Dr. T. D. LISTER read a paper on "The Out-patient Child and School Attendance." He doubted whether hospital physicians were wise in undertaking the granting of medical certificates prohibiting school attendance. The schools were under no obligations to accept

any such certificates, and it was open to the authorities, in case of doubt, to employ their paid medical officer. He gave instances where expert knowledge and views had clashed with the ideas of the paid official and greatly to the detriment of the child. He advocated regular medical inspection and examination of all the children in all the schools. In New York medical officers were employed under the Board of Health in addition to a corps of school nurses. The duties included a weekly routine inspection of the children in every school, public or private. He considered it almost a duty at every medical congress where children are considered to press in the public interest for the methodical supervision of the health of the developing citizen.

Dr. BEALE COLLINS (M.O.H., Kingston-on-Thames) agreed with the recommendation that school children should be periodically examined by a medical man.

Dr. CHAS. V. MCCORMACK (Bootle) objected to an education authority casting doubt on the certificates of duly qualified medical practitioners.

Dr. WILLIAM EWART thought regular medical inspection would be an admirable opportunity of periodically passing in review our growing population.

Mr. J. G. TURNER read a paper on "The Teeth of Children in Relation to Public Health." He dwelt first on the influence of defective teeth in early childhood on the permanent dentition, and pointed out that the dental equipment might be crippled for life. The next detail was the relation of myopia to dental diseases in childhood. It seemed probable that it might be directly traceable to malnutrition due to dental diseases in childhood. He had seen epileptic fits reduced in frequency by 90 per cent. in a child by extraction of dirty and decayed teeth. The next proposition was that caries was a disease of young life, and it is environment that makes it so. Caries comes from outside—the teeth are but passive resisters. Soft food was a fruitful source of caries, starch and sugar, which undergo acid fermentation, being specially harmful and prepare the way for bacterial attacks on the dentine. He advocated hard food as a preventive of caries, insuring mechanical cleansing of some parts and flushing of others by saliva. Malnutrition in infancy resulted in badly formed permanent teeth. Inquiry into the history of such cases almost invariably brought out the fact that in infancy these persons were fed on "infant foods" or at best on boiled cows' milk. Observers had found caries more frequent in artificially-fed infants than in those breast fed. Ulcerative stomatitis showed

well how disease might be communicated from mouth to mouth. He had seen it spread through a whole family, and if one germ, why not another? He thought that unclean mouths and carious teeth of children played an important part in the dissemination of tubercle. He advocated instruction in mouth-cleanliness at every Board School. The teeth should be cleaned the last thing at night, and no food of any sort, especially biscuits or sweets, allowed after this cleaning, as so often happens at present. Careful use of the tooth brush, of waxed silk passed between the adjacent teeth, and of a dilute antiseptic mouth-wash applied for three minutes at a time, were preventives of caries. Finally, at least a half-yearly visit to the dentist for an overhauling and thorough cleaning. His watchword was prevention. He would create a special officer whose duty it would be to inspect and clean children's teeth, and to begin with, commence with the dental hospitals. This might be followed by the establishment of similar posts in dispensaries, cottage hospitals, schools, etc.

Mr. A. H. TUBBY congratulated Mr. Turner on his paper. It was only by perpetual reiteration by experts that facts were finally accepted by the public.

Dr. WILLIAM EWART dwelt upon the value of the views set forth by the reader of the paper.

Dr. HARRY CAMPBELL read a paper on "The Evil Effects of too soft a Diet in Children." He emphasised the importance of giving children their starchy food in a form compelling adequate mastication. Not only were digestive disturbances occasioned by soft food, but the maxillary apparatus not being exercised adequately, did not develop properly; neither did the nasal passages or the naso-pharynx. The teeth were apt to be irregular and to decay, and the child became the victim of adenoids. That the latter was a dietetic disease he had not the slightest doubt. He would give hard, solid foods at the seventh month, when the infant should be allowed to gnaw at chop bones and chicken bones and to eat hard, leathery crusts, biscuits, sugar-cane, and certain fruits. In this way the child learnt to masticate by instinct, and not till then a limited quantity of the softer farinaceous foods might be permitted. Throughout childhood the bulk of the starchy foods should be in a form which will compel mastication, and they not only favour the development of the maxillary apparatus (including the jaws, teeth, tongue, and salivary glands) and the neighbouring nasal passages and naso-pharynx, but further insure adequate buccal digestion.

Mr. WILLIAM HALL (Headingley) considered "adenoids" to be due

to defective bone-making owing to the insufficiency of bone-forming foods in the dietary.

Mr. TURNER agreed generally with Dr. Campbell's points, and he was glad to see that Dr. Campbell's ideas as to food were the same as his own.

Dr. STCLAIR THOMSON remarked that adenoids were found in all races and in all climates, though varying in frequency. The cause of adenoids was unsettled. He did not think that food entered into the causation. The high arched palate had been alluded to, and a point of interest about that malformation was that it was claimed by the throat specialists, the alienists, and the dentists as being something special to their own particular departments. While agreeing with Dr. Campbell that mastication was a much neglected function, he could hardly accept it as a complete solution of a difficult subject.

Dr. T. WHITEHEAD REID (Canterbury) read a paper on "School Food." He said that the child required relatively more food for its body weight than the adult. He was of opinion that indigestion was responsible for most bad work in schools, and insisted on the necessity for good cooking. He advocated a liberal breakfast. He thought that schoolmasters' wives should cultivate the art of cookery, so that they might superintend the children's meals. He alluded to the indiscretion of boys in training for sports cutting off necessary articles of diet, such as sugar, fat, and farinaceous foods. The essence of training was to avoid indigestion and to gradually accustom the heart and lungs to sustained exertion.

The Rev. A. L. HUSSEY alluded to the evils of constipation. He did not believe in allowing children to cultivate fads in diet.

Dr. HUNT (Colchester) did not believe in matrons managing the food in schools. He held that Masters' wives should be responsible and should dine with and on the same fare as the boys as the best means of securing a well-cooked and nourishing dietary.

Dr. REID, in reply, said that in choosing a school for his own girls he would choose one where instruction in cookery was given.

There were no meetings in the Section of Child Study on Saturday, July the 23rd, and the afternoon was devoted to inspecting the schools for the upper and middle classes, which are numerous in Folkestone.

SIR CHAS. CAMERON, in seconding a vote of thanks to Lord Radnor at the inaugural meeting, had alluded to the fine physique of the young ladies attending the schools, which attracted his attention, and which, he said, was such a good advertisement for the pure air of

Folkestone and for the care which was evidently devoted to the pupils in the town.

The first visit paid by the Committee of Inspection was to Miss Pincoff's school, where little boys, from six upwards, mostly only sons, are educated for the larger preparatory schools. The boys, many of them the sons of peers, are well known in Folkestone for their smart appearance, their sailor suits and scarlet caps. The difference in physique between the fresh arrivals and those who had been under her care for a few terms was most marked. The bedrooms and the school fittings and appliances were found to be admirable.

At the Grange School the Committee found Mr. Jelf, son of Mr. Justice Jelf, had succeeded the Rev. A. L. Hussey, who had founded the school and presided over it for many years. Among the many excellent points of this well-known school, where boys of from seven to fourteen years of age are prepared for the army and navy, the learned professions, and the public schools, were the sanatorium, the chapel, and the gymnasium. The sanatorium is a perfect little hospital standing in the school grounds, fitted with two wards of five beds each, with the usual offices and a large convalescent room. Every facility is thus afforded for dealing with epidemics, should they unfortunately arise. In every cubicle fire-escape appliances were to be seen, and the boys were drilled regularly in their use. The dining hall was a model of comfort and airiness, and a point which the Committee marked with great approval was that Mrs. Jelf presided over the children's meals. Dr. Percy Lewis, who was present, also informed them that she was unremitting in her attention to boys who were sick. The boys were paraded, and it was obvious that their bodies were as well cared for as their brains, as judged by the long list of scholarships which decorated the schoolroom walls.

Mr. Roderick's school, now moving to new premises which stand on over three acres of ground on the cliffs between Folkestone and Shorncliffe, is admirably adapted for a high-class modern school for boys. All class-rooms and dormitories are spacious and well proportioned. They are lighted with windows reaching to the ceiling. The opposite side of each room opens immediately into a corridor, and this again has large windows and fan-lights, thus insuring at short intervals an effective change of air. The bathing arrangements, which comprise ordinary baths, spray baths, and shampoo-douche, are admirable for the purposes in view. The building is heated throughout by hot water, the regulation of the temperature of each room being under easy control. The school,

which covers 10,000 square feet, is preparatory. There is a commodious gymnasium, which can also be used as a play-room or lecture-hall. The Committee noticed as a special feature a large changing-room, warmed and ventilated and fitted with separate cabins for each pupil. A sheltered playground so that the pupils could be sent for an interval between each lesson, and the Head Master claimed that he thereby obtained twice the amount of work from the pupils.

Miss Bradnack's school, which was founded by her father thirty years ago, is a feature of Folkestone. The Committee were satisfied with the healthy appearance of the boys. At the time of their inspection a meal was being prepared, and they were pleased to note the liberal supply of fruit for the scholars. A collection of photographs of distinguished men was seen who had been former pupils of the school. In the school there were several two-bedded rooms for the special accommodation of brothers. Adjoining this house was Mr. Oswald Bradnack's school. All the rooms in this building had a south or west aspect and a charming sea view. Both Mr. and Mrs. Bradnack are well-known musicians, and it is therefore not surprising that the study of music is made a prominent feature here by those who have a taste for it.

At both these institutions the great affection existing between the pupils and the members of the Bradnack family was a matter of comment and conveyed the idea of a happy home life.

The school accommodation for girls in Folkestone is of a no less high order than that for the boys. The Committee were only able to visit a few of them, amongst these being Miss Ismay's and Miss de la Mare's.

Miss Ismay's is beautifully situated and overlooks large public gardens. All the rooms have a south or west aspect with sea view. The bedrooms contain cubicles for each girl, and are airy, well-ventilated, and daintily furnished. The sanitary appliances and kitchens are eminently satisfactory. The girls present a charming picture of health and happiness, and the whole tone of the school bears an aspect of refinement and comfort. Miss Ismay has the reputation of having a special gift of bringing out the best characteristics of each pupil, a reputation which is apparently well deserved.

Miss de la Mare's represents one of the large girls' schools. The house is a modern building situated in its own grounds in a charming part of the town. From kitchen to garret everything is spotlessly clean and in apple-pie order. The bedrooms and class-rooms are large and well ventilated. The lavatory accommodation is modern

and excellent. The committee were fortunate in being present at a gymnastic display by the girls, who were of fine physique. The precision gained by the scholars in their exercises afforded them astonishment and pleasure. They subsequently had an opportunity of viewing a tennis tournament, which was presided over by the gymnastic mistress, and in this respect the girls were no less efficient than in their gymnastic display. Girls in this school are daily reminded that domestic matters are not to be despised, but must be attended to as a duty. Thus they make their own beds, they are compelled to be tidy, and they skilfully employ their needles on the repair of their apparel. Every physical impression that human ingenuity can devise is brought to bear on these children to mould them into well-educated, capable, helpful, and resourceful women of sound constitution. The committee left with the impression that they had been entertained by a thoroughly capable mistress in the person of Miss de la Mare, who would be willing to adopt anything of a novel nature which would be likely to benefit her pupils mentally or physically.

It was impossible for the delegates to visit all the schools of Folkestone, but if those which were inspected are fair samples of the whole, then the town is to be congratulated in possessing such excellent institutions, and they reported to that effect. They were pleased that private schools were assuming a lead in the appointment of medical officers, who alone should be responsible for the health of the children. Those mentioned, as well as others, had secured the services of Dr. Percy Lewis as their medical adviser, an expert in school administration.

The teaching of hygiene in elementary schools.—Every one who has witnessed the extent to which Board School children suffer from avoidable disease will be in hearty sympathy with the memorial presented to Lord Londonderry in June on this subject. The memorial was signed by no fewer than 14,718 medical practitioners in the United Kingdom, and was introduced by Sir William Broadbent, Sir Victor Horsley, Sir Thomas Barlow, Sir Michael Foster, M.P., Dr. Mary Scharlieb, and other influential members of our profession. The attention of the Education Department was drawn to the fact that no instruction whatever is at present given to children in the most important of all subjects—the art of keeping well by the pursuance of simple rules of hygiene—and it was urged that steps be taken to alter this very anomalous state of affairs. With this aim we are in the heartiest agreement, as being one which above all

others would improve the health and development of children throughout the country. Lord Londonderry, in reply, was unable to give any definite promises on behalf of the Government, though he expressed his sympathy with the proposal.

Abstracts from Current Literature.

Medicine.

Spastic paraplegia in a child (*Société de Neurologie*, January 7, 1904; *Archives de Neurologie*, p. 170).—**Dejerine** and **Chiray** showed a girl aged eight, who had developed paraplegia in the past six months. There had been no previous illness. There was no disturbance of sensation and no sphincter trouble, but the patellar and Achilles reflexes were exaggerated, although no extensor response was present in the toes. The upper limbs were intact. The right pupil reacted neither to light nor to accommodation, and the left reacted sluggishly to both. Mental enfeeblement had accompanied the other symptoms. Lumbar puncture showed a lymphocytosis. There were no spine symptoms to indicate Pott's disease, and the case was too old for it to be one of Little's disease. Medullary congenital syphilis was the provisional diagnosis, although the child showed no other stigmata. The mother had lost two infants at an early age, and the last one, dying at three months old, had certainly had congenital syphilis.

Raymond had seen an analogous case in a girl of fifteen, whose father had died of cerebral syphilis. The case proved to be one of juvenile general paralysis.

A. ERNEST JONES.

Infantile herpes zoster (*Rev. des Mal de l'Enf.*, December, 1903; *Gazette des Hôpitaux*, 1904, p. 219).—From a study of sixty-three cases, **Fabre** concludes that fever is common, either at the onset of the eruption, or as the result of a complication. Pain does not usually occur, but may be sufficiently severe to prevent sleep. The duration is shorter than in adults, and the development of the eruption is more irregular. Treatment should be directed towards improving the general health. The local lesions should be treated as in the adult, and special attention should be paid to protecting the vesicles and preventing their rupture, and directions are given for securing this end.

S. H. BOWN.

Kernig's sign (*Amer. Jour. Med. Sciences*, 1904, 1, p. 1064).—This sign was pointed out by Kernig in 1882. It is an inability to extend the leg fully when the thigh is at right angles with the trunk. The angle at the knee can be measured, and varies from 90 to 135 degrees in positive cases (Kernig). Since then anything under 135 degrees has been accepted as positive. Kernig maintained that the sign is a constant and early symptom in meningitis, that it may be present in the arms, and that it can be obtained in other conditions. **Miller** enumerates the observations and results of many other observers, and gives his own. The angle was measured by an inclinometer. He divides his cases into four groups—1. Acute in-

fections, mainly typhoid and pneumonia. 2. Various forms of meningitis. 3. Central and peripheral nervous troubles. 4. Patients who had been in bed for several weeks. He prefers to take an angle of 115 degrees or less as positive, finding that angles of higher degree are not infrequent in many other conditions than meningitis. Taking 115 degrees as the maximum, he found the sign present in 45 out of 190 cases; in 6 out of 10 cases of meningitis; with absolute absence in two; in 3 out of 22 pneumonias; in 5 others a higher angle (up to 125 degrees) was present, and in 14 it was absent. None of the cases of pneumonia showed signs of meningitis. He concludes that a maximum angle of 115 degrees gives more valuable results than an angle of 135 degrees, as proposed by Kernig. The angle depends in part on the force used in extending the leg, and therefore the actual measurement of the angle is not essential. The sign is present in a large percentage of cases of meningitis, but is not constant, and may be transitory or only appear late. Cases should be examined daily. It is occasionally present in a typical form in a number of widely different conditions, and there is therefore no uniform cause for it. It may be unilateral. If present in suspected meningitis, it is in favour of the diagnosis, but its absence in the early stages is not infrequent.

EDMUND CAUTLEY.

A case of recovery from tetanus ('*Jahrb. f. Kinderheilkunde*, June, 1904, p. 776).—F. Ehrenfreund records a case which occurred in a boy aged 12½ years. The condition was said to have come on as the result of a blow on the neck. The boy presented the characteristic features of the disease, namely trismus, the risus sardonius, opisthotonos, clonic spasms, and contractures. In view of this the writer believes that any suggestion of hysteria as an explanation of the condition must be negatived, and that the case was one of genuine organic tetanus. No abrasion was discovered which might have constituted the point of invasion of the system by the tetanus bacillus, but the writer attaches no importance to this. The case was treated by means of chloral internally, together with injections of tetanus antitoxin. Under this régime improvement soon set in, and the patient was discharged as cured after nine weeks in hospital.

E. P. BAUMANN.

Congenital laryngeal stridor ('*Du stridor laryngé congénital des nourissons*. Thèse du doctorat du Bordeaux, Imprimerie du Midi, 1902).—

F. Martin refers the occurrence of some forms of congenital laryngeal stridor to such local lesions as glottic spasm, paralysis of the laryngeal muscles, malformation of the larynx, and is of opinion that other pathological conditions may not infrequently be combined with these, such as adenoid vegetations, hypertrophy of the thymus, and swelling of the tracheo-bronchial glands. But he is also careful to point out that the true congenital laryngeal stridor is caused, as Sutherland and Lack have shown, by the epiglottis being sharply folded upon itself, with which is associated an approximation of the aryepiglottic folds in such a way that the upper entrance to the larynx is reduced to a long narrow slit. During deep inspiration the soft walls of this slit are still further drawn in towards one another, and a crowing noise is produced. Sutherland and Lack were able to see the flapping to and fro of the aryepiglottic folds in cases which were examined during the paroxysms of stridor.

Charles Hermann ('*N.Y. Med. Record*, October 18, 1902) reports a case in a child 3½ months old, in which the stridor appeared shortly after

birth. As is generally the case in this condition, the crowing was not constant, but could be brought on by making the child cry. In other respects the patient was quite healthy. The diagnosis of congenital laryngeal stridor rests upon the following considerations—the presence of the stridor at birth, its purely inspiratory character, the absence of continued cyanosis, and the impossibility of removing the stridor by altering the position of the patient (D. Crossby Green, 'N.Y. Med. Journal,' June 27, 1903). In addition to these we may add that, following the directions given by Lack for the laryngoscopic examination of these cases—pulling forward the base of the tongue, and with it the epiglottis, by the finger placed in the pyriform fossa—one may be able to make out the abnormal shape of the supra-glottic space. The prognosis in these apparently alarming cases is, as a rule, good. As the patient grows older the divergence between the parts bounding the entrance to the larynx is increased, and these parts become more resistant. At the same time, fatal cases have been recorded, generally where bronchitis or some other pulmonary complaint has occurred to aggravate the dyspnoea; and it is further to be kept in mind that the long-continued obstruction to deep inspiration may lead to deformity of the chest wall, especially in rachitic children. With regard to treatment it is obvious that while much may be done to preserve and improve the general state of such a patient's health, little or nothing is possible for the complete and permanent removal of the symptom. An attack of distress which threatens life may call for intubation or tracheotomy. Every effort should be made to shield the little patient from attacks of bronchitis. (J. E. Newcomb, 'N.Y. Med. Record,' July 25, 1903.)

DAN MCKENZIE.

Endemic cretinism and treatment by thyroid extract ('*Berliner Clin. Wochenschr.*,' No. 32, 1903).—**Magnus-Levy** has had fourteen cretinoid children under observation, thirteen of whom had small thyroids, while one was goitrous; as these were taken from only seven families the author's contention that they were endemic and not sporadic cases may be taken as probably correct. Treatment with the usual thyroid gland extract was carried out in seven cases with a fair result; that is to say, the stature of the patients increased, their intelligence showed some enlivening, and the swellings of the skin disappeared. From these results the author concludes, what has long been tacitly admitted to be the case, viz., that endemic cretinism, like sporadic cretinism, is due to a deficiency or absence of the thyroid secretion.

DAN MCKENZIE.

The Enumeration of Leucocytes ('*Lancet*,' June 25, 1904).—**A. Ernest Jones** describes the various methods in use for the determination of this count. He gives a new procedure, by means of which the corpuscles present in 1600 squares can be counted in a very few minutes, and with no calculation whatever. Several reasons are given why the use of separate pipettes for the red and white corpuscles—acetic acid being the diluent in the latter case—is preferable to counting both corpuscles from one pipette, with a stain as diluent. Two of the chief fallacies of the differential count are considered in detail. These are the errors due to paucity of data, and the misleading custom of giving results in percentages instead of in absolute numbers. Illustrations of the mistakes caused by both fallacies are given, and the mathematical basis of the subject explained.

THEODORE FISHER (Bristol).

Ascites in tuberculous peritonitis varying according to the exclusion of chlorides from the diet (*La Clinique Infantile*, March 1, 1904, p. 129).—**Nobecourt** and **Vitry** contribute a paper on this subject. Since attention was drawn to the part played by the chlorides in the production of serous accumulations in the tissues, several observers, notably Achard, Paiseau, Widal, and Chauffard, have reported good results which have followed the removal of chlorides from the diet. Nobecourt and Vitry tried the effect of alternately decreasing and increasing the chlorides in the two following cases:—(1) A boy of 10 years was admitted into hospital on July 24th, 1903, suffering from tuberculous peritonitis and ascites. When the patient was up the fluid rose to three fingers above the umbilicus, the general condition being otherwise good. The previous year a median laparotomy had been performed, with slight result. On October 31st the child weighed 24 kilogrammes, and eliminated 13 grms. of chlorides daily on an ordinary diet. The next day he started Widal's dechlorided diet, *i.e.*, raw meat 210 grms., potato purée 500 grms., butter 70 grms., tea with sugar $1\frac{1}{2}$ litres. This régime was continued till November 16th. When the child had accommodated himself to the diet the daily elimination of chlorides averaged 2 grms. The general state continued the same, the abdominal measurement at the level of the iliac crests was 62-60 centimetres, against a previous 64. The weight decreased by a kilogramme and the urine from 1,800 to 800 grms. On November 17th 10 grms. of salt were added to the previous diet, half taken with the meat, half in a cachet. The weight increased by $1\frac{1}{2}$ kilogrammes in three days. The abdominal measurement rose again to 64 cm., and the fluid increased so as to cause slight dyspnoea. The chlorides eliminated in the urine did not increase till the third day, then they rose to 11 grms. per diem, and the urine to 1,600 grms. On November 21st Widal's diet was recommenced and somewhat similar results again obtained. On December 1st the child was placed on ordinary diet, with the result that the weight was increased and the chlorides eliminated were also increased. (2) A female of 14 years was admitted into hospital in January, 1903, suffering from tuberculous peritonitis with effusion. Her temperature at night rose to 100° F., and she had considerable dyspnoea. On January 23rd the patient was put on Widal's dechlorided diet. The weight fell in five days 1.35 kilogrammes, the ascites diminished so that the abdominal measurement was reduced from $74\frac{1}{2}$ cm. to 73, and the elimination of chlorides fell as low as 1.5 grms.: the urine dropped from 1400 to 600 grms. On January 28th the patient was put on ordinary diet, with raw meat in addition. The weight increased a kilogramme the next day, and the chlorides eliminated gradually increased, but there was no great increase in the quantity of urine. These two cases illustrate the connection between the ingestion of salt and serous effusion. It is interesting to note that with dechloridation the weight, urine, and excreted chlorides diminish gradually and simultaneously. In rechloridation the chlorides do not vary for the first two days, when the weight increases most, and the urine does not increase for the first three days. Corresponding results have been obtained when a similar diet has been applied to cases of cardiac and cirrhotic ascites. Nevertheless, it does not follow that the dechlorided diet should be regarded as a means of treating tuberculous peritonitis, since salt plays an important part in general nutrition and harm may be done by restricting its use.

A. T. BARNARD.

Pathology.

Contribution to the study of acute anterior poliomyelitis (*Société of Neuro-pathology and Psychiatry of Moscow, January 17, 1903; 'Archives de Neurologie,' July, 1904, vol. xviii, p. 87*).—**P.A. Préobragensky** reports fully the case of a man, aged 23 years, who had been bitten by a mad dog. He underwent anti-rabies treatment, but after two months suddenly felt a weakness of the right arm, with, later, a difficulty in breathing. He went into hospital on the next day, but died in a few hours. When examined clinically, he was very excited, had great cyanosis and dyspnoea, and had complete paralysis of the right upper extremity. The knee-jerks were absent; there was profuse salivation. At the autopsy was noted an acute anterior poliomyelitis, from the fifth to the eighth cervical segment. Microscopically were demonstrated large hæmorrhages, dilated vessels, an accumulation of leucocytes, a proliferation of glia cells, œdema of neuroglia and degeneration of the nerve-cells. The region of the antero-lateral artery seemed to be more affected than the rest. In several spots in the central nervous system were present great accumulations of leucocytes (rabies tubercles of Babès). The author considers that there is no essential difference between myelitis and poliomyelitis, the conditions fading into each other both clinically and pathologically. He looks upon this case as a poliomyelitis of known infectious origin. (The findings in this case seem to support Crocq's criticisms of van Gehuchten's and Babès' opinion regarding the specificity of the central nervous system changes in rabies.)

A. ERNEST JONES.

A treatise on the blood in a case of Barlow's disease: Analogy with myeloid purpura (*'La Clinique Infantile,' February 15, 1904, p. 87*).—**Lenoble** thinks that Barlow's disease may be regarded as a form of primary or myeloid purpura, attacking very young children and revealing a special aspect of the disease in question. Clinically he mentions four points of analogy—1. In both diseases bony changes may go on to subperiosteal hæmatomata. Joint pains have been described in myeloid purpura as well as in scurvy. 2. Purple spots in both cases. 3. Hæmorrhages in connection with the mouth are a feature in both diseases. 4. They have a common origin, *i.e.* alimentary disturbances, resulting in gastro-intestinal troubles and giving rise to a toxin, acting specially on the bone marrow. The study of the blood in a case of Barlow's disease of a girl of 11 months enabled M. Lenoble to note the following points:—1. No retraction of clot. 2. Presence of normoblasts, a few neutrophile myelocytes (specially transitional forms). 3. Alterations in the hæmatoblasts (blood-platelets) which have become more scanty, but more bulky, and have little tendency to agglomerate. These alterations, he said, were identical with those observed in primary purpura. However, he considered more cases should be examined before the identity of the diseases could be considered proved. If the blood were to be any use as guide it should be examined very early in the disease, since the presence of abnormalities was very fleeting. Normoblasts should be regarded in scurvy, as in purpura, as a means of defence against infection, not as the indication of a commonplace anemia.

A. T. BARNARD.

The action of the tubercle bacillus on the meninges and brain substance (*'La Clinique Infantile,' January 15, 1904, p. 49*).—**Armand Delille** has made a special study of the action of the tubercle bacillus on

the meninges and brain substances, and has arrived at the following conclusions:—(1) The tubercle bacillus acts on nervous matter (*a*) by a local poison which operates first on the meninges and then on the vessels of the underlying tissues. The brain substance thereby suffers and degenerative lesions are mechanically produced; (*b*) by a diffusible poison which causes symptoms of nervous intoxication, though by no known method can changes in the cell or alterations in the meninges be demonstrated. (2) Tuberculosis of the meninges is never complicated by inflammatory lesions of the brain substance proper. Important alterations may occur in the tissue directly underlying the diseased pia mater, but such lesions are always degenerative and consequent on vascular changes. He considers that the symptoms are mostly due to local lesions or vascular degeneration, and that intoxication of the bulb by diffusible poisons only occurs when the disease is far advanced.

A. T. BARNARD.

Concerning modifications caused by castration, as regards ossification of the epiphyses ('*La Clinique Infantile*,' April 1, 1904, p. 207).—

Variot in a "Communication to the Société Médicale des Hôpitaux," gives some facts concerning the process of ossification of the epiphyses in cryptorchids. He considers that the effect of abdominal cryptorchidism and early castration both result in a general dystrophy, but the skeleton and the nervous system suffer most. He cites a case of his own where there was abnormal length of the limbs, both inferior and superior. He quotes the observations of Pittard, who made a special study of this subject among the *Skoptzy*, a religious sect among whom castration is enforced. Pittard made exact observations and measurements on thirty eunuchs, which he divided into two groups, the hairy (10), and the smooth (20). The last-named only he considered as true eunuchs. According to these measurements, the relative length of the lower limbs to the whole body was greater by from 6 to 10 cm. than the same proportions in the normal man. The upper limbs were of about the same proportions as the lower. The diameters of the cranium were, however, reduced in all directions, and the brain was correspondingly small. These observations are in keeping with those made by various observers on animals. The bull, for instance, has his hind-legs shorter in proportion than the bullock. Buffon, in the eighteenth century, remarked that the growth of the antlers was retarded in stags that had been castrated. An attempt has lately been made to distinguish between spermatogenesis and testicular secretion, which latter process has such an important trophic action on the general economy.

A. T. BARNARD.

Therapeutics.

Case of abasia cured by hypnotic suggestion (*Société d'Hypnologie et de Psychologie*, May 17, 1904; '*Archives de Neurologie*,' vol. XVIII, p. 81).—**Stembo** (of Vilna) showed a girl, aged 10 years, who had suffered from a feverish attack for a week. After this she was quite unable to walk on the ground, although she could move her limbs and walk on a bed, bench, or table. Some months afterwards she had measles, and then could walk on the ground, but only if someone held her hand. Left to herself, she could not walk a step. Treatment by hypnotic suggestion quickly cured her. Probably there was functional disturbance of the association centres, and hypnotic suggestion revived the memory of the mechanism of walking.

A. ERNEST JONES.

The therapeutics of protylin (*'Therap. Monatshefte,' June, 1904*).—**M. Bürger** describes the results of a series of observations upon the value of this drug in the treatment of various pathological conditions. Protylin, which is a synthetic preparation, is an albuminate of phosphorus. It contains a considerable quantity (2·7 per cent.) of this latter substance, and the writer ascribes to this fact its efficacy in the treatment of diseases of the nervous and osseous systems. It is also prepared in combination with iron and other salts. The writer obtained excellent results by its use in anæmia, various cachectic conditions, neurasthenic and organic nervous lesions, in convalescence from pyrexial conditions, etc. The most marked results, however, were obtained by doses of 1-2 gr. of protylin in the treatment of rickets. In all cases rapid and striking improvement took place.

E. P. BAUMANN.

The therapeutics of fersan (*'Therap. Monatshefte,' March, 1904*).—**B. Ehrmann** records the results of a series of observations upon the action of this drug in the treatment of various pathological states. Fersan is an acid albuminate of iron and phosphorus which is prepared from the blood of oxen. The writer employed it with marked benefit in the treatment of anæmia, chlorosis, pyrexial conditions, in states of convalescence, and in rickets. The drug yielded speedier and more striking results than any other iron preparation. The improvement of appetite and of the general condition of the patient were especially remarkable. In rickets excellent results were obtained on doses of 6-9 gr. per diem.

E. P. BAUMANN.

Surgery.

The results of cerebral surgery in congenital mental defects (*'New York and Philadelphia Medical Journal,' September 19, 1903; 'Archives de Neurologie,' July, 1904, vol. xviii, p. 73*).—**William D. Spratling** has summarised the results of 194 operations in the above condition. He says that he knows of no case in which surgical intervention has established a normal mental condition. The fact that nowadays operation is so rarely resorted to, as compared to the frequency of operation ten years ago, is in itself strong evidence against the utility of such procedure.

A. ERNEST JONES.

Actinomycosis of the tonsils (*'Amer. Journ. Med. Sciences,' 1904, vol. ii, p. 74*).—**Wright** examined seventy-five hypertrophied tonsils microscopically and in one of them, removed from a boy aged 12 years, he found an abscess cavity containing masses of actinomyces. Apparently the germ had lodged in a tonsillar crypt. The boy developed no secondary growths. Rüge in 1896, in a paper entitled "Ueber Actinomyces-ähnliche Gebilde," etc., reported that he had found actinomyces in four out of twenty-five cases, examined microscopically, and suggested that the systematic examination of excised tonsils would reveal it more frequently. Rüge seemed somewhat doubtful as to whether the cases were true actinomyces.

EDMUND CAUTLEY.

Congenital hypertrophic stenosis of the pylorus; pyloroplasty; result (*'Brit. Med. Journ., 1904, vol. i, p. 1483*).—**McCaw and Campbell** report another case of this interesting affection in a male infant. He was

healthy and well developed at birth, breast fed, and began to vomit about two weeks after birth. At one month of age he did not weigh so much as when he was born. The bowels acted twice daily, the stools being small and containing a few curds. He had been fed on condensed milk for two weeks. On a mixture of cream and whey he improved during the next fortnight, and then the symptoms became more definite. The intervals between the vomiting attacks were much longer, and the amount brought up was much greater. Dilatation and peristalsis were noted a week later, but the pylorus could not be felt. Under careful nursing and feeding he gained a pound in weight. Eventually the obstruction became more complete and pyloroplasty was performed, the child being extremely weak and emaciated. Vomiting persisted, and death resulted on the sixth day. Post-mortem, the pylorus admitted the passage of a cedar-wood pencil, but the redundant mucous membrane obstructed the orifice. Probably a good result would have been obtained if the parents had consented earlier to an operation. The authors lay much stress on the redundant mucous membrane blocking the orifice. This I have already called attention to, pointing out that it may be thrown into several folds or into one large fold, standing out as conspicuously as the verumontanum in the prostate. I do not agree with them that there is any true hypertrophy of the mucous membrane.

EDMUND CAUTLEY.

Congenital hypertrophic stenosis of the pylorus (*The Bristol Medico-Chirurg. Journ.*, June, 1904).—**Theodore Fisher and Newman Neild.** The child was eight weeks old when first seen, and the symptoms had apparently dated from three weeks after birth. The child died in the twelfth week of life from emaciation; no operation was possible on account of the weak condition of the infant when it came under treatment. The capacity of the stomach after death was fourteen ounces; the pylorus showed very marked hypertrophy. Some excellent photographs of the condition of the abdomen showing the peristaltic waves were given in the article and should be referred to.

P. LOCKHART MUMMERY.

The surgical treatment of chronic and acute nephritis (*The Montreal Medical Journal*, May, 1904).—**A. Primrose** has been one of the pioneers in the surgical treatment of renal disease, and in this paper he describes his cases in detail and gives his conclusions. His first patient was a boy of ten years, suffering from chronic nephritis with oliguria, albuminuria, and much oedema. The first operation consisted in making an incision two inches long in the capsule of the right kidney. Temporary improvement followed, and a month later he operated on the left kidney, removing the capsule in its entirety. Notwithstanding an attack of acute pneumonia the boy steadily improved, the oedema passed off entirely, the albumen and casts diminished, and the boy gained weight (20 lbs.) He was discharged from the hospital nine months after the last operation in excellent general health, the urine being practically normal, and continued well without any treatment for the following twelve months. He was then re-admitted to hospital with an acute attack of nephritis, which yielded readily to medical treatment. Ten weeks subsequently another acute exacerbation took place, and further operative interference was attempted for his relief. The operation of decapsulation was performed on the kidney, which previously had simply been incised, but the benefit on this occasion was doubtful, as relapses followed. These relapses, according to the author, were traceable to errors of diet. As long as the patient was kept on a diet of milk, cream, and

farinaceous food he remained free from trouble, but whenever he was placed on full diet he developed serious symptoms. This brings the history of the case up to the time at which the paper was written. His next case was a boy aged eight years, whose illness had commenced with puffiness of the face and general anasarca a month before admission and five months after an attack of diphtheria. Medical measures were adopted and failed to effect any improvement in his condition, which a month later was considered critical. He was passing on an average seven ounces of urine daily, of a specific gravity of 1030, with 1·3 per cent. of albumen, and containing fatty and granular casts. The capsule of the right kidney was completely removed. At the time of the operation the kidney was found to be slightly enlarged and pale, the capsule stripped off without tearing the costea, and there was no marked tension. His condition was not improved after the operation, convulsions set in, and death followed from uræmia. Dr. Primrose is inclined to ascribe the fatal result to the use of calomel, which was largely used as a purgative during the patient's stay in the hospital, and which he thinks ought to be interdicted in all cases of nephritis. Another practical point on which he lays stress is that ether should never be used as the anæsthetic in operations on the kidneys because of its irritating effects, and he recommends chloroform as safer in all such cases. Other operative cases are described, and then the author proceeds to give the results of his experimental work on dogs. He finds that in dogs a delicate new membrane may be found covering the kidney within twenty-four hours after decapsulation. The explanation of this is that the capsule is formed of two layers, of which only the outer one comes away, while the inner one remains and becomes thickened from inflammatory exudation. At the end of two months it is thicker than the original capsule, while at the end of three and a half months it is differentiated into two layers again. The various views held as to beneficial results obtained from surgical interference in nephritis are discussed, and the author's conclusions are as follows: "I am not one of those who advocate decapsulation of the kidney as a measure to be adopted indiscriminately in Bright's disease. We cannot, however, close our eyes to the fact that a very remarkable effect can be produced by operative interference in such cases. I am of opinion that we shall sooner or later arrive at the conclusion that in a certain class of cases relief is to be expected from surgical interference. The limitations of the operation are far from being set at present, but I consider the attitude of the individual who stigmatises the operation as useless is just as unreasonable as that of the individual who advocates operation as a curative agent in all cases."

G. A. SUTHERLAND.

Preparation.

Neave's Food has long been before the public, and has an established reputation. Analysis shows that the albuminoids are 14·7 per cent., the carbohydrates 75·5 per cent., the remaining constituents being composed of cellulose and moisture, with mineral salts containing phosphates to the extent of 1·2 per cent. When the appropriate period has arrived for the addition of cereals to the infantile dietary, Neave's Food may be used as it is a carefully prepared combination of excellent quality.

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Original Articles.

A CASE OF HYDROCEPHALUS IN WHICH DRAINAGE
OF THE VENTRICLES INTO THE SUBDURAL SPACE
WAS ESTABLISHED.*

By CHARLES A. MORTON, F.R.C.S.,

*Professor of Surgery in University College, Bristol, and Senior Surgeon to the
Bristol General Hospital and the Hospital for Children and Women.*

As it seems desirable to record any cases in which a new method of treatment is adopted, I have thought it well to bring this one to your notice this afternoon. The method of operating for hydrocephalus employed was suggested by Mr. Watson Cheyne and Dr. Sutherland,† and has been employed by Mr. Watson Cheyne and other surgeons. I may perhaps remind those of you who have read Mr. Watson Cheyne and Dr. Sutherland's paper that the object of the operation is to establish a communication between the distended ventricle and the subdural space, so that the fluid may be readily absorbed by the meningeal veins. I think the record of my case

* Read at the Provincial Meeting of the Society for the Study of Disease in Children, June the 18th, 1904.

† 'Brit. Med. Journ.,' October the 15th, 1898.

proves that such a communication may exist for some considerable time, and yet the hydrocephalus may increase.

The baby, K. H—, aged 7 months, was under my care in the Children's Hospital in 1900. She was born with hydrocephalus, and the head had been enlarging out of proportion to the growth of the infant ever since birth. Between August the 25th and December the 19th it had increased $1\frac{1}{4}$ inches. There was constant nystagmus, and alternating internal strabismus. The limbs were not paralysed. The enlarged head was tense, and all the bones were separate. The circumference of the head was 22 inches. I operated on December the 19th. A flap $\frac{3}{4}$ inch wide at its base was turned down, over the extension of the anterior fontanelle downwards between the right parietal and frontal bones, and the thin membranous skull and dura mater reflected. The brain bulged out as soon as the cranial cavity was opened, and was so tightly pressed against the skull that it was impossible to get any drain between the two, without great risk of passing it into the cerebral substance. I grasped the end of a piece of fine rubber tubing two inches long with Sims' forceps, and pushed them through the cerebral cortex (which was very thin) into the ventricle. After a little fluid had escaped through the tube, and the intra-ventricular pressure thus reduced, I easily inserted the other half of the tube between the dura mater and the cortex. The tube was secured to the dura mater by a fine silk stitch, and the flap of dura mater and membranous skull was then sewn back in place by fine silk sutures. This was done quickly, as until the last stitch was put in, the cerebro-spinal fluid flowed slowly away. It came through the tube and out by the side of it. The baby was wrapped in wool during the operation, and there was no shock. As the result of the leaking of fluid during the operation, his head became quite soft, and the edges of the cranial bones prominent, with a tendency to override. There was some leaking of cerebro-spinal fluid into the dressing during the first twenty-four hours. The wound was healed and the stitches removed on the eleventh day after the operation. The infant up to this date was kept lying on the side of the head opposite to the wound. There were signs at this time that the head was enlarging again, and after this the head steadily increased in size, and six weeks after the operation it measured $1\frac{1}{2}$ inches more than it did before the operation. This increase was slightly greater on the side not operated on. A month later it had increased another half inch. As there was some difference in the rate of progress of the disease on the two sides, and as I thought the rubber tube might have become kinked and failed to act a short time after its insertion, I decided to

repeat the operation on the other side, as Mr. Watson Cheyne did in one of his cases. Mr. Ballance very kindly sent me a specimen of the metal drainage tube he had been using for the operation, and I had a similar one made for use in this case. On March the 2nd I turned down a flap on the left side in an area corresponding to the operation on the right, and exposed the brain in the same way. I inserted one arm of the rectangular metal drainage tube into the ventricle, and then withdrew the fine wire in its lumen. No fluid would flow through it, the lumen was so fine. I therefore inserted a piece of rubber tube, as I had done on the other side, by the side of the metal one, and cerebro-spinal fluid slowly flowed away by the side of it. Both tubes were fixed by fine stitches to the dura mater, and the free ends placed in the subdural space. I thought I had stopped the leakage of the cerebro-spinal fluid by suturing the flap of dura mater and the membranous skull into place, but the leaking went on into the dressing, which had to be changed in twenty-four hours. There was no shock from the operation. During the next few days some leakage continued, and the bones were overriding. Ten days after the operation the wound was found healed except a pin-point aperture, from which cerebro-spinal fluid leaked. The temperature ran up to 105° F. the same evening and the baby died. It is interesting that the high temperature which has, I believe, been fatal, or at any rate been present with a fatal termination, very soon after the operation in some cases, came on in this case on the tenth day after operation. The cause of this pyrexia of death is not clear. It was certainly associated with a continuous leakage of cerebro-spinal fluid.

Post mortem.—On opening the cranium before the cerebro-spinal fluid escaped from the ventricle, the brain was observed to have retracted from the skull to the extent of an inch. There was no meningitis. The rubber drainage-tube inserted at the first operation on the right side was found fixed to the dura mater by the silk stitch; one end was adherent to the dura mater line quite patent, the other lay within the ventricle; it was not kinked, and after removal fluid could be readily syringed through it. By the side of the hole through which it entered the ventricle another opening had formed between the ventricle and the subdural space, one third of an inch in diameter. The edges were quite smooth, and the opening round. It did not present at all the appearance of a tear. From the neighbourhood of the opening a thick band of adhesion an inch in length extended to the dura mater. On the left side the brain was adherent to the scar. Both the rubber and the silver tubes were

in the ventricle, but the other end of the rubber tube had in some way become buried in the brain substance, though it was certainly placed in the subdural space. There were several thin adhesions of pia mater to dura mater over the vertex. The foramen of Munro was much enlarged, so that there was a very fine communication between the ventricles.

As there must be some doubt as to when exactly the hole, one-third of an inch in diameter, formed between the ventricle and the subdural space, I will not refer further to it as a means of communication between the two. But the rubber tube put in on December 19th had certainly kept up such communication for more than two months, and yet during that time the hydrocephalus had steadily increased. There was nothing to account for the slightly greater increase of the left side, for with so large a foramen of Munro the ventricles might be regarded as practically one.

A CASE OF CONGENITAL STRICTURE OF THE ŒSOPHAGUS.*

BY BERTRAM M. H. ROGERS, M.D.Oxon.,

Physician to the Hospital for Children and Women, Bristol.

CASES of stricture of the œsophagus are so rare that I have thought it worth while to record this one before the Society.

Wm. N—, aged 1 year and 10 months, was sent from Cornwall to the Children's Hospital on April the 1st, 1904. He was a prematurely born child, and was nursed by his mother for three weeks only, after that being fed on milk and patent foods. For the first ten months of his life he was fairly healthy, took his food well, and was only sick a few times, not sufficiently to make his mother anxious about him. But a few weeks before he came under my care he had been frequently sick, bringing up his food unchanged soon after a meal, and mixed with a large quantity of mucus. So severe had the vomiting been that the child had lost weight considerably and the medical man under whose care he was had resorted to rectal feeding. When admitted, the first thing that struck me was the extreme emaciation of the child; he weighed only 16 lbs. 9 oz. He was rickety, though not excessively so, and

* Read at the Provincial Meeting of the Society for the Study of Disease in Children, June the 18th, 1904.

was constantly crying—I believe, from hunger. On examination, the veins in the neck were observed to be very full, swelling up considerably when the child cried, and filling from below. The neck was thin but the lower part seemed full, though no definite enlargement of any organ could be distinctly made out. The lungs were full of mucous rales, and whenever he vomited a large quantity of mucus was expelled. No dulness could be found in the thorax. The temperature was subnormal. Vomiting came on after every meal, and milk given him was, as a rule, uncurdled and neutral to test-paper. To test how long he retained food we fed him every four hours with alternate coloured and uncoloured meals, using methylene blue, fuchsin and chocolate, also having the vomit tested for acidity. We found after several days' observation that most of the food went into the stomach and was absorbed, but he would retain somewhere, either in an œsophageal pouch or in the œsophagus, food for as long as eight hours before returning it. Sometimes the vomit came from the stomach.

The passage of a tube did not give us much help. Several times it was impossible to get beyond a point just behind the upper part of the sternum, on other occasions the tube went into the stomach and returned with an acid fluid on the tip, while often it seemed to hitch near the cardiac end of the œsophagus and coil up on slight pressure. In fact, the passage of the tube helped us very little.

I also tried if I could see a pouch by the X rays, and had the child fed with a biscuit mixed with bismuth carbonate, but got no result.

The child lost weight rapidly and was evidently doing very badly, but I was surprised when on April the 13th the bronchial condition became much worse, there was much stridor, and finally he became cyanosed and died on the 14th.

The specimen which is before you shows that there is a fairly tight stricture about an inch from the lower end of the œsophagus. How it arose is impossible to say, but perhaps the same conditions that produce the pyloric stricture of children may have caused this. None of the causes put forward appear to me to satisfactorily explain why either develop.

The diagnosis lay between a pouch and a stricture, and I was inclined to the former. The former is rare, a stricture almost, if not quite, unrecorded.

SOME OF THE LESS COMMONLY RECOGNISED MANIFESTATIONS OF RHEUMATISM IN CHILDHOOD; WITH REMARKS ON THE TREATMENT OF THIS DISEASE.

By JAMES BURNET, M.A., M.B., M.R.C.P.Edin.,

Senior Clinical Tutor, Extramural Wards, Royal Infirmary; Registrar, Royal Hospital for Sick Children; and Physician to the Marshall Street Dispensary, Edinburgh.

HOWEVER obscure may be the pathology of rheumatism, one fact at least has been definitely ascertained, namely, that it is a disease which differs widely in its clinical manifestations as we pass from childhood into adolescence, and again into adult life. We are, perhaps, too apt to suppose that rheumatism is a comparatively simple disease, whereas closer observation tends to prove that it is a great complex, somewhat akin to gout in the variety of its clinical manifestations. This is certainly the case with regard to the rheumatism of childhood. Its hereditary nature has been questioned, but personal experience goes to prove that heredity plays a most important part in its causation as evidenced by the three following cases:

Girl, aged 14. Severe pains in legs and back; heart enlarged, with mitral systolic murmur; had always been nervous; enlarged tonsils; temperature 101° F. Mother suffered from arthritic pains; father was a martyr to rheumatism. Had seven brothers, three of whom had had attacks of acute rheumatism, while two others suffered from some heart affection. Had five sisters, two of whom died of heart disease, while the three still living showed distinct rheumatic tendencies, one being constantly laid up with acute sore throat; a second had had rheumatic fever three times, and the third had chorea at the age of 10.

Man, aged 42. Subacute rheumatism. Paternal grandfather and grandmother died of heart disease, and both were subject to rheumatism. His father was said to be a healthy man, but had frequent attacks of lumbago and sciatica. Of three brothers, one had acute rheumatism at the age of 22, the second had a weak heart, while the third suffered from sciatica. His only sister died of heart disease following on a "wetting" (and therefore indicating in all probability an attack of acute rheumatism).

Boy, aged 10. Acute rheumatism. His mother had always been a rheumatic subject, suffering frequently from lumbago and arthritic pains. The patient's brother had had a severe attack of chorea. His sister had been under my care for acute rheumatism. His maternal grandfather died of heart disease following on rheumatism. Two of his aunts died of heart disease, while his uncle was said to have a "weak heart," and to be constantly laid aside with "pains."

These cases certainly indicate that we dare not altogether ignore the importance of the hereditary factor in the production of rheumatism. But it is not so much of the pathology of rheumatism that we wish now to speak; rather it is our intention to point out some of those clinical manifestations of the disease as seen in children which are not as yet, to our mind at least, sufficiently emphasised by writers on the subject.

In the first place, pharyngitis and tonsillitis deserve to be more frequently regarded as rheumatic than they are at present. Not uncommonly a child is brought to us who is feverish and fretful. It is out of sorts, refusing its food, and is restless and irritable. The temperature is perhaps but slightly raised. Examination of the child reveals no satisfactory cause for its condition. The pharynx, however, is seen to be red and congested, while the tonsils may be slightly enlarged. Now, in some of these cases careful light percussion of the heart shows it to be somewhat dilated; while, after careful cross-questioning, a general soreness may be complained of all over the body. That some at least of these cases are in reality rheumatic is beyond a doubt, for they yield rapidly to anti-rheumatic remedies, as we have proved time and again. The difficulty we have to face is to determine which cases of acute sore throat are rheumatic and which are not. In settling this question the results of treatment afford us a very important aid. Tonsillitis is said to be more common in the rheumatism of adolescents and of adults than in that of children; but we are convinced that pharyngitis in the child should always be looked on suspiciously, the heart carefully examined, and the child kept in bed until all doubts are set at rest as to the real nature of the case.

Pneumonia is probably never looked on as a manifestation of rheumatism; but we have had under our care quite recently a child of six years whose family history was strongly rheumatic, and who, after the pneumonia cleared up, showed unmistakable evidences of chorea. It is quite possible, therefore, that some cases of pneumonia

attributed to "chill" are in reality due to the specific virus of rheumatism. Further clinical observations must, however, be made by diverse workers in order to prove the truth of this assertion. It is certainly a matter deserving more attention than has yet been given to it.

There are those who deny that psoriasis and rheumatism are related, but again personal observations seem to prove that in childhood at all events psoriasis scarcely ever occurs save in rheumatic subjects. One of our most marked cases of psoriasis was that of a little girl who had been under our care on different occasions for acute rheumatism, anaemia, chorea, and purpura. The family in this case were all rheumatic, not one having escaped at some time or other the manifold affections which rheumatism produces. Often on questioning the parents we find that one or other of them is rheumatic, and not infrequently there is a parental history of psoriasis obtainable. In further proof that psoriasis is a rheumatic manifestation, we have found great benefit result from the administration of anti-rheumatic remedies.

Appendicitis is undoubtedly a rheumatic affection in not a few cases. This is a fairly common disease in childhood, though we fear its recognition is often missed in the case of young subjects. Sometimes a child is brought to us complaining of abdominal pain, which passes off under simple treatment, only to recur in a few weeks. It is a safe rule to regard these recurrent attacks of pain, especially if associated with sickness, as appendicial in origin, and to be prepared to find that one of them will eventually prove to be a typical attack of inflammatory mischief in this region. Such has been our experience. Apart altogether from this type of case we have others in which the evidences of appendicitis are clear from the outset, and in some of these also we have been able to make out a distinct rheumatic history. The association of appendicitis and rheumatism is apt to be lost sight of, but the relationship is such an important one that it deserves to receive due attention from the profession generally. Had space permitted we could have detailed the case of a boy who had a pretty sharp attack of appendicitis. His parents were both rheumatic, while his two younger sisters had both suffered from acute sore throat, while one of them had chorea. Nor is this the only case that has come under our notice, for we have notes of three others where the history of rheumatism was quite as distinct.

There is a condition to which I have ventured to give the name of gastro-enteric spasm, in which the child complains of acute gastric pain after a meal and has an urgent call to stool. These cases are

certainly not all of rheumatic origin, but we believe that many of them are. At all events we have found them very often improve under treatment by salicylate of soda when all other remedies had failed.

There is a manifestation of rheumatism which is very apt to be disregarded, or at all events to be looked on as a sign of general debility. We refer to that common condition of childhood, namely pain in the side or in the upper part of the chest. In the former case the pain is very often referred to the loin, and in the latter to the infra-clavicular region, or at all events to the part of the chest above the third rib. The pain is sometimes not very acute and is often most marked when the child is tired out after play. It is usually attributed to debility, and accordingly it is treated by tonics. In many such cases we have found anti-rheumatic remedies give brilliant results. This pain may often be detected in choreic subjects if carefully inquired for, and this fact alone is of considerable significance.

Lastly, we wish to point out that children of rheumatic heredity do not always present any definite manifestation of the disease. They are often, however, found to be extremely nervous and irritable, extremely sensitive, thin and spare, subject to fits of violent temper, and are generally of a restless disposition, constantly on the look-out for some fresh form of amusement. When this nervous restlessness reaches a certain maximum point it becomes associated with muscular movements, which, beginning in slight twitchings, gradually increase until we have a true chorea established. This is the true origin and evolution-history of chorea, which is nothing more save muscular movement superadded to a pre-existing state of nervous unrest. This is the solution of the chorea problem which we ventured on some two years ago, and we see no reason for giving any other solution at the present time.

Now as to the treatment of rheumatism in childhood. A few words must suffice on this important subject. Generally speaking the best results are got from the administration of aspirin or of salicylate of sodium. These must be given in large doses. Children tolerate these remedies better than is generally supposed. To a child of five, 10 grains of either remedy may safely be given every four hours for several days. Another drug in which we have great faith is calomel. It is best given in doses of $\frac{1}{2}$ to 1 grain three times a day. It keeps the gastro-intestinal canal in good working order, a matter of no little moment in rheumatic conditions. The heart requires special attention, and cardiac conditions are best treated

locally by means of an ice-bag, which should be carefully wrapped up in flannel; and, if need be, it can be slung up so that its weight does not press upon the yielding chest-wall of the patient. If convalescence is retarded, the patient should be put on small doses of cod-liver oil, and the administration of anti-rheumatic remedies continued.

ON NIGHT-TERRORS AND SLEEP-WALKING.*

By the Rev. ARTHUR L. HUSSEY, M.A.

Late Headmaster of the Grange School, Folkestone.

I OBSERVE that the paper which comes next on the list to mine is entitled "Schoolmaster and Doctor." After being a schoolmaster for nearly half a century, I may be allowed to express a hope that this title is not meant to imply that in the region of education there is a natural antagonism between the two functionaries. It may be an open question whether the doctor could or could not get on in life without the schoolmaster; but it is certain that the latter, with the heavy responsibility which rests upon his shoulders, could not long go on without a medical adviser within easy reach to help him in his difficulties, so sudden and so grave as they often are.

When one of the secretaries of this Congress invited me to read a paper in the "Section for Child Study," and with some hesitation I consented, I chose as my subject "Night-Terrors and Sleep-Walking," not as laying claim to any scientific knowledge of their physiological bearings, but as having had some intimate and curious acquaintance with them during long years spent amongst young boys.

It may be thought that night-terror, better known amongst adults as "nightmare," and somnambulism or sleep-walking, are practically one and the same thing, or at any rate merely two results of the same temporary condition of the brain. Observation, however, leads to the belief that this is only partially true; for the phenomena attending an attack of night-terror and an attack resulting in somnambulism are sometimes curiously different. One main distinction appears usually to be that in a night-terror the sufferer, though he may be in a state of partial delirium, is as a rule conscious

* Read at the Royal Institute of Public Health Congress, Folkestone (Section for Child Study and School Hygiene), July the 25th, 1904.

of what he is doing, and is able to give an account of it afterwards ; whereas in somnambulism he acts as it were automatically, and afterwards has no recollection, or at most a confused recollection, of what he has done in his sleep. In the one case the child may be impelled by a terror-striking dream, or some other imaginary cause of alarm, to start from his bed ; and when half, but not wholly, awake he will endeavour to fly from his fictitious enemy and will rush for rescue to someone within reach ; but when he has been soothed and the fit is over he will be conscious of having acted foolishly. On the other hand, the phenomena of sleep-walking appear to be nearly allied to the unconscious acts of hypnotism, and often there are abnormal developments similar to those which occur in the case of a hypnotised person whose power of volition is in abeyance. This was well shown in seven lectures on "Somnambulism" delivered at Berlin many years ago by Dr. Arnold Wienholt, a German physician, and afterwards published in English. In these he points out that sleep-walking has for ages been observed and theorised on by Plato, Aristotle, Hippocrates, and others. Those of us who have read the poem of Lucretius, "*De Rerum Natura*," will remember that, in treating of the soul and of dreams, he alludes to the circumstance that in their dreams bounds will give cry and go through the action of running, as though still pursuing their prey ; and he mentions that lap-dogs will act in much the same way ('*Lucretius*,' Book iv, p. 991, etc.). I have never seen a dog actually walking or running in his sleep, though I can conceive it to be quite possible. But I must not go outside my special subject, which deals with the young of mankind.

As a rule it may be assumed that amongst children disturbed sleep is the result of indigestion in some form, proceeding usually from unwholesome or excessive diet, unless there be some deeper origin in the form of disease, actual or impending. At school it may arise from a supply of consolatory sweets sent with mistaken kindness by a sister or some other relation. Frequently I have had little boys sent to me direct from home, and have been warned that they are in the habit of screaming at night, and getting up in a fright, and so on, and yet when they have settled down in their new course of life nothing of the kind has happened. This may be accounted for by the discipline and regular routine of school, which even during sleep exercise a controlling influence, combined with a simpler dietary. Not but what the perversity of boyhood will thwart the best efforts of the schoolmaster and the matron. Thus the pernicious habit of cigarette-smoking, which is so much in evidence

at present, may be forbidden under pains and penalties, and yet (*horresco referens*) I have known small boys manufacture abominable things out of brown paper and even blotting-paper, and steal out to smoke them on the sly, with light hearts laying up for themselves an attack of jaundice or dyspepsia in some form, with terror by night to follow.

In Dr. Goodhart's most useful manual, 'The Diseases of Children' he writes as follows: "Nightmare, or night-terror, is a nervous affection of young children, and is allied to the much rarer phenomenon of sleep-walking." He goes on to describe the two as "sleep disorders, where cerebral under-currents seethe below a placid surface," and he denies that they invariably arise from dyspepsia. He proceeds: "The children in whom night terror occurs are usually quick, excitable, nervous children, and it runs in rheumatic and neurotic families: It would be interesting," he adds, "to follow it up in relation to epilepsy and other nervous disorders."

That there may exist this connection with epilepsy appeared many years ago in a remarkable case with which I was confronted. I was summoned in the night or early morning by a pupil who came in much alarm to tell me that one of the three schoolfellows who slept in the room with him had been trying to strangle another in his bed, with the words, "I'm going to throttle you!" and had been pulled off by the united efforts of the other two. On going to the room, where it was quite light, I found the boy in question, who was barely twelve years old, asleep in his own bed, to which he had returned, and snoring loudly and unhealthily. The youngster had undoubtedly and in grim earnest made the murderous assault of which I had been informed as the result of temporary mania following on an epileptic attack during his sleep. Dr. Bowles, who at that time attended my school, remarked to me, "There's been many a man hung under circumstances like these." The boy in question was removed to a private tutor; he had doubtful health for some time, with inability to study; but all this passed away, and he grew up into a sound and strong man, and now in middle-life he holds an honoured position of trust.

To pass for a moment to the ridiculous, it was in the same house and at about the same period that I was again aroused from my rest, this time by loud shouts of angry defiance and a violent thumping against the door of a room near my own. On summoning up courage and proceeding to the spot, candle in hand, I found an assistant-Master standing fast asleep in his night-garment and engaged in a

fierce encounter with a long bag which hung on a peg inside his door and contained his dirty linen. It has been well remarked, "We are all stark mad in our dreams, though it is only when dreams pursue us into waking hours that we are accounted insane" (Dr. Leonard Guthrie, in 'System of Medicine,' vol. viii, p. 218).

The most remarkable case of acute night-terror which I have known occurred a few years ago, in the person of a pupil of eleven years of age. He is now a young man in full vigour, and he retains to this day a perfect recollection of what took place—so much so that he has revived my own remembrance of the circumstances by writing down for me an epitome of it all.

It was in the height of summer, and in the early hours of the morning that he dreamed he was being pursued. So he jumped out of bed, and after vainly trying to bring to the rescue a companion sleeping near him he ran with bare feet and nothing on but a white night-shirt down to a lavatory on the first floor. Here he bolted the door on the inside and at once got out of the window, which is fully twenty feet from the ground. He endeavoured to grasp a water-pipe in the angle of the wall, but failing to catch hold of it he fell to the ground, fortunately dropping on a soft bush, which to some extent broke his fall. Then he started off along the gravel walk and through a gate leading to a kitchen-garden, where against a wall there was a fig-tree in full foliage, behind the broad leaves of which he crouched for concealment; and fancying that there was something written on one of the leaves, he took it and placed it in the breast of his night-shirt, where, curiously enough, it was found next morning. He seems after this to have returned to his right mind, and to have thought that he had better go back to the house. He tried several doors, which were locked; so at last he climbed through an extremely narrow space over some spiked iron bars outside a window in the basement which happened to be open at the top; he went upstairs, and was heard by other boys running back to his bedroom. Next morning he was stiff and sore, but not materially the worse outwardly. Before his escapade he had complained of head-ache, and had gone early to bed, but had not been at all seriously ill. Next day he had a very high temperature, for which Dr. Henry Lewis found it difficult to account till an attack of follicular tonsillitis supervened, from which with treatment he readily recovered.

It was completely proved that this boy's adventures were not imaginary nor invented; for everything which he had stated was borne out, down to the bush on which he fell, and which retained his impression; the fig-tree, with its leaves torn off and disordered;

and the lavatory door, which was found to be bolted from the inside.

This, then, may be considered a typical, though an extreme, instance of a night-terror, in which the victim had lost his power of reason and self-control, yet, notwithstanding this, acted consciously, and afterwards remembered what had occurred.

I could describe in detail other cases, but my time is limited, and it might be tedious. There was one in which a boy rushed down in the night to the schoolroom, and slammed the lids of the desks up and down, probably with the idea of frightening away an imaginary enemy; and then he ran upstairs to the matron's bedroom and called to her "Save me! Save me!" In another instance a boy for no conceivable reason went in his sleep to a neighbouring dormitory and ejected the rightful tenant from one of the beds, into which he got and buried himself, head and all, under the clothes. That, however, was rather a case of sleep-walking; for after being led back, still asleep, to his own dormitory and bed, he recollected nothing of the freak next day, except that in a hazy way he imagined that for some reason he had been made to get out of bed.

I am inclined to believe that somnambulism proper is less rare than Dr. Goodhart supposes amongst children. It is an interesting question whether the eyes of a sleep-walker are more usually open or shut. In my own experience they have been open; and in the well-known scene in "*Macbeth*" (Act V, Scene 1) where Lady Macbeth, tormented by her guilty conscience, walks in her sleep, the "Doctor of Physic" says to the woman in waiting, who, along with him, was watching, "You see, her eyes are open"; and she replies "Ay, but their sense is shut." Here, as usual, Shakspeare is true to nature. Not but what somnamblists are recorded frequently to have their eyes closed, and, as in hypnotism, to be able to dispense with their use and avoid danger.

Once I had been sitting up late in my study, which had two doors, and through one of them leading from the schoolroom there suddenly appeared a small figure clothed in white, and advancing towards me with noiseless step. He gazed at me with eyes wide open and dilated pupils, and merely said "Oh, Sir!" I am sceptical about ghosts, but I confess it was a little weird and startling. However, I took the child by one hand and led him through the other door up the front stairs and back to his room. Neither of us spoke, but when we got there the door of the room was seen to be wide open, for he himself had left it so on coming out. He started back, and said in a low but alarmed voice: "There's someone in there!" I said something to

reassure him, and we went in ; the other boys were sleeping soundly, he did not wake, I tucked him into bed, and so the incident ended. Next morning the whole occurrence was a blank to his mind.

The freaks of somnambulism are so varied that they lend themselves only too readily to fiction. Many will remember "the Spectre of Tappington" in the 'Ingoldsby Legends,' where, as the tale goes, a sleep-walker used to bury his nether garments at night in the garden and dream that a spectre had appropriated them. This amusing but fictitious story can be almost paralleled by a true one. In one of the school bedrooms, where, according to custom, the water in the hand-basins was poured out over-night, it was observed each morning that one of them had been used, soap, towel, and all, no one knew by whom. So frequently did this occur that a rumour got about that a ghost of cleanly disposition was accustomed to enter the room and perform his ablutions while the boys were asleep. At last it was discovered that one of them, aged about ten, used to rise in his sleep and wash his hands. He was a child of tidy habits, and probably it had been carefully instilled into him that it is not nice to get between the sheets with dirty hands.

In conclusion, I will say that I have never traced a case of either night-terror or sleep-walking to over-study and pressure on the part of teachers. Such a cause undoubtedly may exist ; but it is, as I think, too often assumed by physicians and others as a matter of course.

It is but a truism to say that the health of the young, their moral health and their physical health (and the two go strangely in union), involves a serious responsibility to all who are entrusted with it ; and no one who knows what the responsibility is will ever treat the subject lightly. I can only trust that what I have put together on one detail of it will not have been considered beneath the notice of this section of the Congress.

Editorial.

DELAYED CHLOROFORM POISONING.

THE 'Scottish Medical and Surgical Journal' for August, 1904, contains an elaborate and very valuable article on this subject, which hitherto has received but scant attention in this country.

The article, which is by Mr. Harold Stiles and Dr. Stuart McDonald, of Edinburgh, was originally communicated to the Society for the Study of Disease in Children on May the 6th of this year, and appeared in the June number of the 'British Journal of Children's Diseases,' page 262. It contains a full account of all existing foreign literature concerning the supposed fatal after-effects of chloroform, together with reports of three cases in which death seemed attributable to this cause, and records of experiments made upon animals in order to determine the effects of prolonged chloroform anaesthesia. These experiments amply confirm the results of similar investigations made by Nothnagel (1866), Ungar and Junkers (1883), Strassmann and Ostertag (1889), Bandler (1896), Heintz (1896), Shenk (1898), and Poroschin (1902). They prove beyond doubt that chloroform is an intense protoplasmic poison capable of producing changes in the organs sufficient to interfere seriously with their function, and that such changes are of a fatty nature, involving especially the liver, kidneys, and heart, and probably other parts.

Chloroform, whether injected subcutaneously or introduced into the stomachs of animals or given by inhalation, gives rise to like effects. In some cases the animals were killed after undergoing chloroform narcosis for varying periods; in others they died spontaneously within a day or two after recovering with apparent completeness from the immediate effects of the anaesthetic. In the latter case the animal seemed well and lively, and ate freely, for 24 to 36 hours after recovering from intoxication, then became dull and apathetic, ceased to move or feed, and died.

It is important to note that similar fatal results did not follow the administration of ether. Shenk, however, showed that ether, like chloroform, produces fatty changes in organs, though to a far less extent than chloroform.

With regard to analogous effects of chloroform inhalation on human beings, Casper, in 1850, was the first to direct attention to dangerous after-effects of chloroform. He spoke of a condition of chronic chloroform poisoning lasting hours, days, and even weeks after its inhalation, and mentioned the case of a woman who died with mainly cerebral symptoms nine days after amputation of the leg.

Langenbeck in the same year attributed a death, seventeen hours after operation to after-action of chloroform. In this case an extremely fatty liver was found after death.

In 1890 Thiem and Fischer published the case of a man who died four days after an operation on the knee-joint for removal of extravasated blood. At the post mortem, fatty infiltration and degeneration of the liver were found. The kidneys were normal.

In the following year Bastianielli reported three cases in which death occurred from three to ten days after chloroform narcosis. The chief symptoms were extreme restlessness, severe vomiting, cerebral excitement, followed by collapse and death. Jaundice occurred in one of the cases. The post-mortem examination revealed intense fatty degeneration of the liver, and to a less extent of the kidneys and heart. There were also subserous hæmorrhages.

Fraenkel in 1892 investigated five cases in which death occurred from forty hours to twenty days after operations under chloroform. He was the first to make a microscopical examination of the organs, and he discovered fatty changes in the heart, liver, kidneys, voluntary muscles, and in the ascending aorta, which he attributed to the specific action of chloroform.

In this country, Symonds, of Oxford, in 1860 suggested that chloroform was dangerous to the subjects of fatty liver.

In 1894 Leonard Guthrie, in a paper entitled "On some Fatal After-Effects of Chloroform in Children," reported nine cases in which he attributed death to the after-effects of chloroform, and one in which recovery took place after symptoms of great gravity had occurred.

In five out of eight in which post-mortem examinations were made he found extensive fatty changes in the liver. He concluded (1) that death in these cases was due to auto-intoxication; (2) that the fatty condition of the liver, and therefore functional disturbance of that organ, existed before the operations, and (3) that chloroform and operation shock combined aggravated the fatty condition already present and thus loaded the system with toxic alkaloids which the kidneys were unable to eliminate.

These views were not accepted, it being held that the deaths were attributable to carbolic acid or fat embolism, and not to chloroform at all.

In 1903 Guthrie published a second paper in support of his thesis. Its title, "On the Fatal Effects of Chloroform on Children suffering from a Peculiar Condition of Fatty Liver," differed from that of his first paper in order to emphasise his contention that the liver is already fatty before the chloroform is administered, and that the latter merely acts as the "last straw."

He held that his second series of four cases seemed to prove that neither carbolic acid poisoning nor fat embolism would account for these fatalities; that the severity of the operation has little, if anything, to do with the cause of death; and that the only pathological condition commonly found after death is a peculiarly intense degeneration or fatty infiltration of the liver; whilst the only other circumstance common to all cases was that chloroform had been administered some hours or days before death. He did not deny that similar changes to those met with in the liver were found in other organs, but believed that the hepatic condition was of paramount importance. He thought that the liver was, owing to pre-existent fattiness, on the brink of functional inadequacy, and that chloroform aggravated the condition, and so lowered hepatic functions that ptomaines and toxins escaped into the general circulation; whilst chloroform by its specific action on the kidneys prevented elimination of such toxins in the urine and was thus, again, immediately concerned in the causation of death.

In the interval of ten years which elapsed between the appearance of these two papers a large amount of literature had been published and cases recorded, in which death was attributed to delayed chloroform poisoning, by foreign observers. Amongst those mentioned by Mr. Stiles and Dr. McDonald are Ambrosius, Steintal, Ajello, Eisendrath, Bandler, Marthen, Heintz, Salen and Wallace, Dorner, Colm, Ballin, Mintz, and Foerster.

The symptoms and clinical course generally noted in cases attributed to delayed chloroform poisoning are:—after a period of twelve hours or so, in which the patient appears to have recovered completely from intoxication produced by the anæsthetic,—profuse and repeated vomiting, the vomit eventually resembling the dregs of beef-tea, restlessness, excitement, delirium, alternating with periods of apathy, jaundice (occasionally), and unconsciousness deepening to

coma. Death usually occurs on or about the fifth day, but sometimes later, from cardiac or respiratory failure, gradual or sudden. Sometimes death takes place within twelve to forty-eight hours. Pyrexia is not a marked feature, but the temperature commonly shows irregular rises and falls, and is above normal at the time of death. In a few instances there is hyperpyrexia. In these the stage of excitement and delirium is, as a rule, slightly marked or absent, and death is more speedy than is customary.

Albuminuria and the presence of casts in the urine are common, although the urine may have been normal before the operations were performed.

Mr. Stiles and Dr. McDonald discuss at length the various possible explanations of these events.

In three of their cases they were able to exclude fat embolism, antiseptics, and sepsis as being concerned in the causation of death. These cases were all typical as regards symptoms and post-mortem findings of those which have been attributed to delayed chloroform poisoning. On the other hand, they bring forward a fourth case in which similar symptoms and pathological appearances are attributed to sepsis and not chloroform.

This was the case of a child who died eight days after operation for perityphlitis, from gangrenous inflammation of the œsophagus. They therefore hold that the changes produced by chloroform and sepsis are identical. Yet it may be urged that the fatty changes might even here have been due to chloroform, considering that this anæsthetic was used at the time of operation.

On the other hand, the unusually long period (eight days) which elapsed before death suggests that sepsis and not chloroform destroyed life. Had it not been for the gangrene of the œsophagus which ensued, recovery from the effects of chloroform might have occurred.

As the authors point out, most surgeons are familiar with cases which cause great anxiety forty-eight hours or so after operation. The symptoms are similar to those already described, but the surgeon usually suspects sepsis and not chloroform to be their cause. It is quite possible that these are mild cases of acute fatty degeneration produced by chloroform which end in recovery. One can hardly

doubt that were such profound fatty changes as are discovered in fatal cases invariable after inhalation of chloroform, death in all cases would be inevitable.

Why, then, are fatalities of this kind comparatively rare? The duration of the anaesthesia, and the amount of chloroform expended, do not seem to influence the course of events. In some fatal cases recorded, the whole period of anaesthesia did not exceed a quarter of an hour or so, and the chloroform evaporated was not more than a drachm.

Is it possible that such widespread changes as are found in fatal cases can be produced by such small amounts of the anaesthetic and in so short a space of time? Guthrie insists that this is improbable, and therefore presumes that fatty liver is pre-existent.

On the other hand, Lengemann* found that the amount of chloroform given to animals made little difference in the extent of fatty degeneration produced in different organs. He decided that whilst a certain amount of chloroform must be in the circulation before fatty degeneration can be produced, yet this quantity was always present when sufficient chloroform had been given to produce narcosis.

Heintz maintains that *idiosyncrasy* plays an important part in determining the effects of chloroform upon individuals. Others, including Mr. Stiles and Dr. McDonald, advance *idiosyncrasy* as a possible explanation of the untoward effects of chloroform.

Yet an appeal to *idiosyncrasy* is the refuge of the destitute. It suggests the verdict of a coroner's jury, in the absence of post-mortem examination—"Died by the visitation of God." We would wish to know on what the *idiosyncrasy* depends. Further evidence is needed before the view that the liver in these cases is in a fatty condition before operation can be accepted. In Guthrie's second paper he suggested that a fatty liver might be suspected when a history was obtained of repeated so-called "bilious attacks," or "acute gastric catarrh," associated with vomiting, fever, delirium, and night terrors, diarrhoea, or constipation, epigastric pain and tenderness, and sometimes slight jaundice, together with the presence of the sweet and characteristic odour of acetone in the breath.

In such cases acetonuria is also present, and it is worthy of note

* 'Beitrag zur Klin. Chir.' 1900, Bd. xxvii, heft 3, p. 805.

that many observers have detected a great increase of acetone in the urine after chloroform anaesthesia, whilst the modern view is that acetone is not derived from proteids or carbohydrates, but from fat. It may not be unreasonable to suppose that the fat in such cases is chiefly situated in the liver.

Mr. Stiles and Dr. McDonald draw attention to the resemblance between the symptoms of delayed chloroform poisoning and those of diabetic coma, now generally held to be due to the production of acido-acetic and other acids, which are the poisonous precursors of acetone, which in itself appears to be harmless. They regard the analogy between diabetic coma and delayed chloroform poisoning as a working hypothesis, and say "it seems reasonable to suppose that the blood may contain some of the poisonous precursors of acetone, and that in certain cases these are produced in so great an amount as to determine a condition analogous to diabetic coma."

Considerable support is given to these views in a recent paper, "Aciduria (Acetonnria) Associated with Death after Anaesthesia," by E. Brackett, O. S. Stone, and H. C. Low.* Thirteen patients, all children, were treated at the Boston Children's Hospital, within a comparatively short period. Four died and nine recovered.

In seven cases the symptoms began about twelve hours after operation. In six cases no operation preceded. Three of the deaths were in operation cases.

The symptoms were practically identical with those described as due to delayed chloroform poisoning, with the addition of the presence of acetone in the breath and urine.

The only marked anatomical lesion found after death was extreme fatty degeneration of the liver and muscles. In eight of the most severe cases there was either paralysis or some disability, resulting in the degeneration and atrophy of an extensive part of the musculature.

They regard these cases as giving distinct evidence of acute intoxication due in some way to a disturbance of metabolism, and having among its peculiar manifestations the presence of acetone and its allied compounds in the excreta. They apparently occur under many conditions, but are particularly fatal when following the administration of an anaesthetic.

* • Boston Med. and Surg. J., July the 7th, 1904.

The paper is of additional importance because we learn from it that the anaesthetic used in all cases was ether and not chloroform. Hitherto we believe that no cases of this sort have been reported after ether anaesthesia, and as Shenk's experiments go to prove that the effects of ether in the producing fatty changes are not to be compared with those of chloroform, some writers have urged that chloroform should be abandoned in favour of ether.

But it seems evident from the experience of Drs. Brackett, Stone, and Low that the change would not be for the better.

Although these authors speak of "aciduria" as particularly fatal when following the administration of an anaesthetic, they acquit ether of any prominent share in producing it, on the grounds that in one case ether had been administered three years previously without ill effect, and that in a second case, after acetone had disappeared from the urine for a few days, ether was administered without any reappearance of acetone, and without harmful consequences. They conclude that "it can be stated positively that the symptoms are not the result of anaesthesia, operation, or shock, unless in the presence of certain underlying causes still undetermined."

They incline to think that such underlying causes may be a highly-strung nervous temperament, confinement, changed habits and diet in hospital, homesickness, and dread of operation, which may lead to changes in metabolism hitherto not taken into account.

With regard to these views it may be mentioned that in not a few of the deaths attributed to delayed chloroform poisoning, chloroform had been previously administered without ill effect. The ill results have been ascribed to repeating the inhalation of chloroform before the fatty changes produced by its previous administration have passed off.

In the case of ether, however, as already mentioned, there is no evidence that its administration gives rise to any extensive fatty changes comparable with those produced by chloroform. Therefore the fatty degeneration in ether cases must have been present beforehand.

The emotional conditions mentioned do not seem to have been prominent in many of the cases of death after chloroform.

Admitting that both in the case of ether and of chloroform, acidæmia may have a share in causing death, we must yet remember that cases of acetonuria are by no means fatal unless occurring in conjunction with other morbid conditions. Acetonuria is found in diabetes, starvation, malignant cachexia, peritonitis, and other abdominal disorders, sepsis, pneumonia, after poisoning by phloridzin and morphia, and, as we have seen, after general anæsthesia, whether induced by ether or chloroform.

Even in the first case described by Brackett, Stone, and Low, in which although no anæsthetic was administered, yet the child died with typical symptoms of delayed chloroform poisoning, and typical fatty changes were found after death, a double intussusception of the jejunum was also discovered, and it is more probable that this, rather than aciduria, accounted for the fatality.

We are not acquainted with any cases exhibiting symptoms of delayed chloroform poisoning which have proved fatal in healthy children unless that anæsthetic or ether has been given, or unless some obvious complication or morbid condition has also been present.

Hence it seems unlikely that in the large number of cases which have died with the symptoms mentioned and the pathological findings described, the anæsthetic can be absolved of all participation in the fatal result.

Evidence at present is insufficient to prove that the administration of an anæsthetic, whether chloroform or ether, is attended by peculiar danger in the presence of pre-existing fatty metamorphosis of organs in general and of the liver in particular. We wait for further information.

It is possible that the frequency of these fatalities has been underrated, and we would appeal to surgeons to publish any unrecorded instances in the hope that light may be thrown on events at present shrouded in mystery. We must again express our thanks to Mr. Harold Stiles and Dr. McDonald for their valuable contribution to the literature of the subject.

Excerpta Puerilia.

The Children's Section at the British Medical Association at Oxford—Where was it?—Inquiries have reached us from various quarters asking as to the whereabouts of the Section for Children's Diseases at Oxford in July last. There was not one; that is why our correspondents could not locate it. The omission was made additionally striking in the face of certain novelties in the shape of Dental and Electro-therapeutic Sections. Other inquirers asked why there was not one; and to these, not being Bond Street palmists or crystal-gazers, we must reply that we do not know. But there have been various solutions of the problem which has been set us to solve, some of which have been given by our correspondents, and they can be accepted or not as fancy dictates.

It has been suggested that it was owing to lack of accommodation that the executive had to omit the Children's Section, because the anatomical and physiological sections, which heretofore have worked harmoniously together, desired to be dissociated. The Children's Section was held in an attic last year at Swansea, and hospitable Oxford might on this occasion have found an unoccupied cellar for it as a pleasing contrast.

Then it has been whispered that each professor had a department of his own to run and show off, and if the Executive had not countenanced this the "oaks" of the laboratory doors would have been "sporting," so delightfully human are even guileless scientists. As the University of Oxford does not recognise childhood in its medical curriculum—at least the first childhood—the absence of a Children's Section can be accounted for in this way. So say others. With the recent appointment of Dr. William Osler as Regius Professor of Medicine it is anticipated there will be a recognition of modern views on the subject.

Next it has been suggested that the very popular and hard-working Society for the Study of Disease in Children has ruined the chances of a successful section at the British Medical Association, especially in view of the fact that the Provincial Meetings of the Children's Society, which are so well attended, are annually held within a few weeks of the British Medical Association's gathering. We do not, however, think that this need weigh with the Executive, and we feel sure the Children's Society will willingly lend their aid if they be approached in the matter.

Another suggestion is that the Executive did not receive any inquiries about a Children's Section; the fact of there not being one was lost in the mass of business that had to be transacted. This, of course, may be true, but it does not seem very feasible, for the Executive would not be likely to allow so important a section to escape their notice in these days when the totally unnecessary infantile mortality and physical degeneracy in our midst have been thrust upon their notice by the Press. Moreover, there has been shown a medical demand—and a strong medical demand—in this country for the study of children's diseases, as evidenced by the foundation of the Society for the Study of Disease in Children, by its well-attended meetings, and by the valuable volumes of 'Reports' annually issued by it. The existence of this Society is now known all over the civilised world, and its work will be found quoted in current medical literature.

That the study of disease in children in this country, in spite of grandmotherly opposition, will flourish and grow apace and be productive of valuable work we have no doubt, and we hope that the Executive of the British Medical Association will give practical effect to a very strong demand on the part of a not unimportant section of their members that in the future the Children's Section shall not be omitted. Later on, in the fulness of time, we hope that children's diseases will be taught in this country and will not be ignored as is the case at present—a state of affairs which is not creditable to that section of Great Britain which controls medical education.

The Royal Institute of Public Health; Congress at Folkestone (Section for Child Study and School Hygiene).—The business of the section was resumed on Monday, July the 25th, the President (Sir GEORGE KEKEWICH, K.C.B.) in the chair.

Dr. PATRICK WATSON WILLIAMS (Bristol) communicated a paper on "The Importance of Normal Respiration in Childhood as a Factor in Physical and Mental Development." He said that though it was recognised "one must breathe to live," it was not generally appreciated that a corresponding proportion of good air was necessary for the oxidation and utilisation of what is commonly called food. Oxidation of the carbohydrates and other nutritive elements brought to the tissues from the alimentary canal was the essential vital process subserved by respiration, and this was conveniently termed *internal respiration*. The act of breathing, or *external respiration*, provided for this assumption of oxygen by the tissues, and also for the egress of the essential product of oxidation, carbonic acid gas.

A frequent important factor of defective respiration was nasal obstruction, and in the production of nasal obstruction adenoid growths played a prominent part, more often by associated catarrh than by actual nasal obstruction. Among other causes were malformations and hypertrophy of the nasal mucous membrane. Children were sometimes operated upon for trifling adenoids, and the real cause of obstruction was overlooked. The importance of respiratory exercises after operation was dwelt upon, and the necessity for operation in the presence of definite lesions in the nose was advanced. Children do not "grow out" of such conditions. The respiratory centres were normally stimulated day and night by the passage of air through the upper part of the nose. Further, the air was deprived of all organisms in its passage through the nose; it was sterilised, it was warmed, it was moistened. Mouth-breathers were liable to throat and lung troubles, and even gastric disturbances, and their liability to tuberculous and other infections was greatly enhanced. Dr. Williams drew a word-picture of the well-recognised characteristic appearance and physical conditions of mouth-breathers—the chest deformity brought about by the absence of proper nasal stimuli to the respiratory centres; associated weakness of circulation in proportion to habitual respiratory defects; and defective activity from poverty of oxygenation of the higher nerve centres associated with impaired mental activity and general lowering of vitality. He drew attention to the care displayed by parents in the selection of food and drink for their children, and to their want of it in permitting them to breathe air contaminated by respiratory excreta owing to lack of obvious precautions. He impressed upon the meeting the necessity for taking a wide view and realising that there were many children whose discoverable defects were less pronounced, and yet whose mental and bodily development was retarded from defective respiration. For these children he would advocate cold bathing, physiological drill, comprising respiratory exercises, and other hygienic measures. When respiration is persistently inhibited from any cause whatsoever the tissues become accustomed to the abnormal conditions of life. So it is with many children. He strongly advocated more and better air for these partially asphyxiated children. Good air was as necessary to a child's growth and well-being and mental development as good feeding, and a sufficiency of good air could not be obtained by the mouth-breather. He considered it highly desirable to teach the children the principles of hygiene in schools and the parents the principles of hygiene at home. In physical drill it was necessary to

bring the respiratory muscles into play, and the teacher should be endowed with sufficient knowledge to recognise the cases where special exercises or treatment were necessary if the children were to know the fulness of life.

Mr. WILLIAM HALL (Headingly) thought the throat and nose troubles of the present day were due to the fact that children were not given "bone-making" food." Every child was born with a Gothic palate and if breast-fed the palate became flattened out and the infant could breathe through its nose; but if hand-reared it became a mouth-breather. He thought almost all mouth-breathers were rickety. In his experience Jewish children suffered much less from nasal troubles than Gentile children, and that was due to the fact that the former were breast-fed. He asserted that there was not one Gothic palate in the many hundred skulls in the Hunterian Museum of the College of Surgeons, and that there were thousands of arched palates with contracted tooth space walking about London to-day. His remedy was, feed the children.

Mr. J. F. BLACKER (Brighton) thought Dr. Williams would be pleased to hear that in the new scheme of physical exercises nose breathing was taught. He said it was impossible to secure education, physical training, and proper breathing unless the child be well fed. In the poorer districts hunger prevailed and a state of almost chronic starvation was not uncommon.

Mr. JOSEPH TREXNER said it was the pride of Jewish mothers to personally nurse their own children, and it was considered a reproach amongst Jewesses when such was not done.

Dr. WILD (Bootle) asserted that nasal obstruction producing pigeon-breast, particularly in rickety children, was frequently improved, and that in a short time, in those who were fortunate enough to be committed to Day Industrial and Reformatory Schools. He thought in many instances operations were unnecessarily performed for the removal of adenoids.

Dr. WATSON WILLIAMS, in reply, paid a tribute to Mr. Hall's splendid work in the feeding of poor children, but he disagreed with his views as to the causation of the vaulted palate. That he thought to be due to nasal obstruction and not to improper feeding. Adenoid growths and nasal obstructions were particularly common in Jewish children. The deformities of the chest due to rickets were different from those characteristic of nasal defects.

Dr. F. J. POYNTON read a paper on "The Influence of School Life upon Rheumatic Children." In his introduction he emphasised the importance of the thoroughly well and long ago recognised fact that

rhenmatic fever was not a disease of the joints only, but that in children especially it was a disease with many and various manifestations. He said when the influence of school life upon rhenmatic children was considered, it presented itself under two aspects: firstly the influence of school life upon a child of rhenmatic tendency, and secondly, the influence of school life upon children suffering from the manifestations of rhenmatic fever. Children who were of rhenmatic stock, or who had suffered from an attack of rhenmatic fever at some previous date, were very frequently highly emotional and nervous. Such children were liable to get quite out of hand at home, and for them the discipline of a well-conducted school was often most beneficial, and brought about a distinct improvement in their general health. Where, however, active rheumatism developed, school life was injurious to them. At first sight it might seem very unlikely that a child suffering from rhenmatic fever could attend school, yet so insidious was the disease that among poor children this occurred repeatedly. One manifestation was of especial importance in connection with school life, and this was chorea, or St. Vitus's dance. He thought that it would be well if it were generally known that this condition was nearly always rhenmatic in origin, and not primarily nervous. He doubted whether the general public had any conception either of the frequency of chorea or rhenmatic fever among the children of the poor in large towns. School work of all kind was injurious to the condition of chorea in the active phases. The onset of chorea was generally gradual—firstly, headache and general failure in health, then emotional disturbances, and lastly disordered movements. Further, chorea was a condition of the very greatest importance because it was a condition not difficult to recognise even by the unprofessional observer. The value of this fact was concerned with the occurrence of heart chorea; both it and heart disease were manifestations of rhenmatic fever, and they frequently both occurred in the same child. Heart disease was very common among poor children, and a far more serious matter than chorea, yet its symptoms were often very slight at this early age and so could be easily overlooked. Chorea, then, became a most valuable warning of probable heart disease. At the present time the only likely hope in the treatment of rhenmatic heart disease in the young lay in prevention. Palliative treatment there was, but curative none, and so it was all-important to discover these cases early, and the general recognition of chorea would aid and assist this early diagnosis. Rhenmatic fever often commenced with a sore throat, and it was most probable that the

infective agent gained access to the system in this way. This had its practical interpretation in the avoidance of ill-ventilated, overheated schoolrooms. He urged the study of rheumatic fever and all its manifestations as an infective process, and not as a disease which resulted solely from diet.

Mr. CHARLES McCORMACK (Bootle) drew attention to the importance of "growing pains" in children, a condition which was very frequently accompanied or followed by profound heart disease.

Dr. WATSON WILLIAMS (Bristol) said there was no room to doubt that a large proportion of cases of tonsillitis were rheumatic (that was well known to the medical profession, and had been pointed out by many independent observers), and that in many instances of systemic rheumatism the upper respiratory tract afforded the portal of entry of the invading diplococcus. He particularly directed attention to the absurdity of mothers having to produce medical certificates that their choreic children were unfit for school. School inspectors ought to be instructed that even slight symptoms of St. Vitus's dance were absolute contra-indications for school attendance.

Dr. EDMUND HOBHOUSE (Brighton) said there was one point on which he could not agree with the reader of the paper. He believed that a large number of cases of relapsing chorea were caused by too early return to school. No child should return to school until all active symptoms of chorea had disappeared.

Dr. POYNTOX, in his reply, concurred with the remarks of the speakers.

Mr. W. BERESFORD KINGSFORD, D.P.H., read a paper on "The Inclusion of Physiology in the Curriculum of Elementary Schools." He said in considering the advisability of teaching physiology in elementary schools the previous question of preliminary preparation had to be taken into account. The value of an elementary education in physiology largely depended on that of the needful preparation in physics and chemistry, while the value of some education in these more elementary subjects was greatly enhanced when they had an objective in physiology. Physiology contributed to the preservation of the State, and hygiene was social physiology. He insisted upon the pressing need for a knowledge of hygiene, not confined to a few officials but diffused among all ranks of the people. A good citizen sought his own welfare and that of his family and the community, all of which was largely a matter of physiology. He thought that hygiene or applied physiology for its proper understanding required first the study of simple physiology. Thus to understand ventilation required a knowledge of respiration, which in

its turn necessitated an acquaintance with physics and chemistry. It would be far better to educate the people than to trust to the visits of inspectors, who were apt to neglect their duties, to compel the carrying out of sanitary ordinations. The elements of ventilation, of drainage, and of some of the most important subjects included under "hygiene" could soon be learnt by those who were prepared with some little knowledge of elementary physiology, chemistry, and physics. He thought it was advisable to give some little school time to these preliminary subjects. Ignorance of most of the known laws of life necessitated the employment of a large army of inspectors, and by reducing their number the national wealth could be increased. He considered that the study of physiology would develop the mind and that well-trained minds were a national asset.

Sir HUGH BEEVOR said that the forms of teaching had yet to be elaborated, and the commencement that had been made in the teaching elder girls the care of infants was a good foundation to build upon.

Dr. PORTER PARKINSON agreed with Mr. Kingsford as to the value of physiological knowledge, but he believed that the teaching of physiology to children of the age at the Board Schools would not be attended by any practical benefit, as the previous training necessary to the accumulation of physiological knowledge could not have been acquired to a sufficient extent.

Mr. J. F. BLACKER (Brighton) said physiology had been taught in the schools, but in his opinion, and for many reasons, it had not been a success.

Mr. CHARLES McCORMACK (Bootle) said that Bootle had already adopted the suggestion. The elements of physiology and hygiene were taught to the head teachers, who in turn instructed the senior pupils.

The Rev. ARTHUR L. HUSSEY, M.A. (Folkestone), read a paper on "Night-Terrors and Sleep-Walking." Mr. Hussey said that during the long years he had been a schoolmaster he had experienced some intimate and curious acquaintance with these conditions amongst young boys. One main distinction between the two conditions was that the sufferer from night-terror was conscious of what he was doing and was able to give an account of himself afterwards, whereas the somnambulist acted automatically and had no recollection, or at most a confused one, of what he had done in his sleep. In children, as a rule, disturbed sleep was the result of indigestion. The surreptitious cigarette might induce the condition. He narrated what might have been a tragic instance in a boy in his own experience which suggested the relationship of the disorder to epilepsy. He was inclined to believe that somnambulism proper was

less rare than is supposed to be the case. In his experience the eyes of the sleep-walker were open, though, of course, many examples had been recorded where the reverse was the case. He had never traced a case of either night-terror or sleep-walking to over-study and pressure on the part of the teachers. He thought this as a cause was too often assumed by physicians and others as a matter of course.

Dr. POYNTOX said he thought it was generally agreed that some alimentary disturbance was the most usual cause. The vivid imagination of some nervous and rheumatic children he considered causative apart from digestive disturbances.

Dr. PORTER PARKINSON said it had been pointed out by Dr. Leonard Guthrie that in some cases consciousness during a recollection of the night-terrors was lost while in others it was retained, also that some cases were undoubtedly akin to epilepsy. Impediments to the proper oxygenation of the blood acted as exciting causes.

Dr. EDMUND HOBHOUSE (Brighton) read a paper entitled "Schoolmaster and Doctor." He said the object of his paper was to show how the modern school is moulded by the dicta of medical science, and will be even more so as judged by the programme of this section. Perhaps in the future schoolmasters will have to be doctors, or doctors schoolmasters, only the burden of responsibility would be too great. Education and sanitary science have developed side by side and become entwined. Great changes have taken place in the last thirty years, affecting not only the comparatively small numbers in boarding schools but the large numbers in national schools. Every educational authority and every school should have its own doctor, whose advice should be final as regards questions of general health, infection, etc. In national schools the school officer should be closely associated with the medical officer of health, his department in large towns being a sub-department of the health office. It was important that it should be so for the sake of economy, and also for training a body of men skilled in school hygiene. The questions which arise between schoolmaster and doctor have ultimately to be settled by an appeal to medical knowledge. Dr. Hobhouse thought that : (1) The present age in primary schools is far too low. (2) The length of hours incapacitated the brains of young children for prolonged attention, inattention being a psychophysical, not a moral, defect in many cases. (3) Starving children cannot learn. Improvement in the food of boarding schools is necessary. Alcohol is not only unnecessary but undesirable. The intervals between meals should

not be too long, and their duration not too short. (4) The ventilation of classrooms and bedrooms is often inadequate. The standard for primary schools is inadequate. Artificial systems of ventilation are bad. Rooms must be warmed in winter. (5) The lighting and the position and construction of desks are most important. (6) The necessity of medical supervision of physical education and exercise is important, and the elimination of the unfit is most desirable. The value of singing, and of breathing properly, should be taught. It is desirable to make a complete physical examination of all pupils at some time in school life. It is important there should be special schools for the physically and mentally unfit, centres being wanted in rural districts for the smaller educational authorities, to which a number would contribute. It is necessary that the teachers in elementary hygiene should be properly instructed. Dr. Hobhouse was of opinion that medical supervision does not mean an increase of luxury, but the ordering of school life on rational principles in accordance with the sanitary laws which science has established.

The Rev. ARTHUR L. HUSSEY, M.A. (Folkestone), thought that the doctor was too prone to snub the schoolmaster as though he were a novice, though he must admit that the doctor was most necessary and most valuable to every schoolmaster.

Mr. CHARLES JELF, M.A. (Folkestone), emphasised the immense importance and comfort the doctor was to the schoolmaster. He had not yet presumed to dispute the doctor's dictum, and he thought it would be many years before he ventured to do so.

Dr. HOBHOUSE, in reply, said that he did not intend to convey the idea that the doctor should be autocratic, but that the principles of medical science should be paramount. The schoolmaster's opinion should be treated with the greatest possible respect, and that their observations could be most useful was shown by Mr. Hussey's valuable paper. He was of opinion that a certain number of cases of sleep-walking and talking were kept up by school work, and not a few of these cases ceased when school work was stopped.

Mr. JOHN JACKSON communicated a paper on "Ambidexterity: its Advantages." He said that it was strange that for thousands of years mankind had been content to specially train only one hand to the almost entire neglect of the other. He advocated having two right hands, in being strictly bimanous, so that at the earliest possible date a complete scheme of two-handed instruction should be made an integral part of our national education; that as a medium for training the eye and developing the mind hand culture stood alone. He alluded to the importance of manual instruction as

a means of developing latent intelligence in idiots, and instanced Seguin's observations thereon. One-handed education, he claimed, induced more or less atrophy of one side of the brain, one hand became more or less crippled, and one side of the body was more or less enfeebled and stunted. He classified the advantages of ambidexterity under physical, mental, moral, and general. According to Gowers the systematic compulsory use of the right and left hands for all manual occupations, including writing, would, so far as could be judged from present facts, secure an immunity from the grave effects on speech of disease of either side of the brain should such disease occur. In regard to writers' cramp such a method of education would deprive this condition of its terrors. It was also claimed that ambidexterity would do more to prevent bodily deformity than all the elaborate systems of exercises upon which great dependence had been placed, and would tend to correct these deformities when they had been produced. Todd claimed better results for the right hand when the left is worked also than from the right hand working alone in the same space of time in almost any kind of handiwork. In relation to mental advantages he (Mr. Jackson) claimed that it increased the memory. Moral advantages were claimed for the method because it had been shown that immoral habits and tendencies in all their diversified manifestations amongst idiots and imbeciles diminished according as the powers of prehension and intelligent handling developed themselves, and just as the *hand* became more and more the instrument and expression of the mind. Its general advantages were seen in the playing fields, the school-room, the kitchen, the arts and crafts, the learned professions, in every occupation of life, in peace and in war.

At the conclusion of the paper Miss JACKSON gave an interesting demonstration of simultaneous right and left hand writing on the blackboard, similar and dissimilar writings by the two hands being rapidly produced at the word of command.

The meeting then adjourned until the following day, when Dr. GEORGE CARPENTER read a paper on "Alcohol and Children." He said the popular idea amongst the medical profession and the public, that alcohol is not only not injurious to children but is of benefit to them in health as well as disease, is open to grave doubt. Alcoholism is by no means rare amongst children, and alcohol plays a far greater part in the production of disease than has been generally recognised. The effect of parental alcoholism could be subdivided into its action on the sperm or ovum and on the maternal organism. Alcohol, when taken into the stomach, could be demon-

strated in the testicle or ovary within a very few minutes. Masses of statistics had been gathered which demonstrated the production of epilepsy and idiocy and other developmental neuroses in the children of alcoholics. Its sphere of influence had been extended, and it was credited by many observers with the production of organic disease in children of alcoholic parentage together with various congenital malformations and deformities. Large numbers of statistics had been collected at home and abroad which tended to prove that alcohol is a powerful factor in the production of miscarriages. Deficiency in maternal milk, which is such an important predisposing cause at the root of our infantile mortality, was, according to von Bunge of Bale, often due to the imbibing of alcohol by the parents. His statistics, drawn from all Europe, show that women with an insufficient supply of milk are usually the daughters of alcoholics. Apart from the direct action of parental alcoholism in the production of disease, the bad moral and physical effects arising in the homes of such children were sufficiently obvious. Another, and a not sufficiently recognised, rôle that alcohol played by its action on the maternal organism was directly through the milk. Alcohol given to a nursing mother did not increase the milk in quantity or quality, and its use for that purpose as advocated in the text-books was of no avail. Alcohol could be traced in the milk soon after its ingestion and for several hours subsequently. Clinically, many cases of infants had been reported in which both acute and chronic alcoholic poisoning was due to the passage of alcohol into the milk, and the possibility of such an occurrence could not be too widely known among the medical profession. In many parts of Europe, especially Normandy, alcohol was given with the idea of stimulating the child's growth. It was popularly believed that there was no danger of a child acquiring a love for alcohol; but this idea was certainly incorrect, as there was a large number of cases of infantile dipsomania on record. Attention was drawn to the indiscriminate employment and large use of alcohol by the medical profession, and it was urged that it should never be used except under the strictest medical supervision. Alcohol should be looked upon as a drug, its dosage accurately estimated, and its effects carefully watched. Case after case had been reported where cerebral complications arising during the course of illnesses in which alcohol had been largely, and perhaps too generously, administered, had been traced to alcoholic poisoning. The treatment of wasting in children by doses of alcohol secondary to undetected cirrhosis of the liver was not unknown. The danger of its continued

administration through convalescence on the termination of the medical attendance was a real one and must be borne in mind. He said it must be understood that the amount of alcohol required to produce baneful effects in children was even in proportion to body weight far less than in adults. This was supported by experiments made by Frick on puppies. These effects, however, were as variable as is notoriously the case in adults; in other words, individual idiosyncrasy was as diverse as is the case with most other drugs. The ingestion of alcohol in repeated doses had led in children to much the same effects as in adults. Thus it was the commonest cause of cirrhosis of the liver in children in spite of a prevalent opinion to the contrary. Alcohol expended its main influence in the child upon the nervous system, and more especially upon the higher nerve-centres. Alcoholic neuritis was thus quite a rarity. Exner asserts that even therapeutic doses of alcohol in healthy school children retards intellectual processes. The outcome of experimental work tends to show that alcohol is a toxic drug even in small quantities, and that there is no scientific justification for its employment in medicine. Any evidence, therefore, in favour of such employment was empiric and rested on a clinical foundation. The opinion was gaining ground that even here the evidence of the good done by the drug was largely fallacious and was based on deceptive observation. There was a fairly complete unanimity amongst workers at the subject on one point, and that was that alcohol never did good in any chronic disease.

The PRESIDENT (Sir George Kekewich) did not think the meeting should separate without fulfilling one duty. They had spent a very delightful time at Folkestone, thanks to many different public bodies and persons, some of whom had received due recognition at the Congress dinner the previous night; but it seemed to him at that time, and it still seemed to him, that among the persons who should have received chief recognition were the Honorary Secretaries of the Congress and of its various sections. In the section over which he presided they were specially indebted to Dr. Percy Lewis and Dr. George Carpenter. They called themselves honorary secretaries, but they occupied a position which was anything but honorary. No one who had not himself undertaken something of the kind could possibly imagine what an enormous amount of work was involved in preparation for a function such as the present undertaking. It was not an affair of a few days: it extended over months. The section had proved a very successful one. He thought that there was a tendency in public opinion and in the newspapers to underrate its importance.

But after all, if there be not sanitary schools and healthy children, the effects of local authorities to improve the conditions under which the people live would be seriously handicapped, if not rendered to a large extent absolutely futile. He proposed a hearty vote of thanks to the Secretaries.

Dr. PERCY LEWIS (Folkestone) said he and his colleague, Dr. Carpenter, were very grateful for the kind way in which the meeting had received the proposition. The thanks of the meeting were due to Dr. Carpenter, the London Secretary, for his classical paper on "Alcohol," which should be printed and widely circulated. Dr. Carpenter had done an enormous amount of work and on temperance principles. He (Dr. Percy Lewis) had been brought up in the brandy school, having been House Physician at King's College Hospital when the Todd tradition still held sway. It was common then to treat typhoid cases with a bottle of brandy a day. Afterwards, at the Hospital for Diseases of the Chest, he became instructed in the temperate way of treating disease. The difference was so marked that he was now in complete agreement with all Dr. Carpenter had told them.

Dr. J. A. MENZIES (Dover) read a paper on "The Influence of Certain Forms of Defective Sight on Education and *Vice Versâ*." He said that up to the present time this important subject had received but scant attention from the education authorities. Whereas far-sighted children experienced difficulty in doing near work, and were consequently liable to become "retarded" scholars, the near-sighted children grew up with an imperfect knowledge of all subjects requiring distant vision, such as studies of Nature, field-life, and many others. Recent statistics showed that quite 50 per cent. of the children in two large Scotch towns required attention for defective sight. He said that there was little doubt but that civilization had brought in its wake defective sight in one form at least, viz. that of myopia or short-sight. Short-sight was unknown among primitive peoples and savage races. According to Koningstein and Schleich, who between them had examined 900 newly-born babies, there was no instance of short-sight amongst them, and it would appear, therefore, that myopia is never congenital. The children of myopes, however, were undoubtedly more apt to acquire myopia than other children. In the infant schools of the London School Board, according to Sayer, the percentage of children with bad sight was as low as $3\frac{1}{2}$ per cent. It increased with age until at the age of eight years 7.8 per cent. had bad sight, and at eleven 11 per cent. had bad sight. Out of 61,676 children examined by eight ophthalmic

surgeons appointed by the School Board for London, whose Report was published in May, 1903, approximately 72 per cent. had normal vision, 28 per cent. approximately had defective sight! The statistics also showed that the children who were backward for their age—the “retarded” children—exhibited a much higher percentage of defect than the precocious children. In the “Report of the Edinburgh School Board” the percentage with defective vision was much the same as in the London Report, being 31 per cent. compared with 28 per cent. In this Report the children with symptoms of errors of refraction were included, and the percentage of defects rose from 31 per cent. to 54 per cent., making the percentage of those who had full normal vision but associated with errors of refraction 23 per cent. If a similar allowance were added to the London Report it brought the total up to 51 per cent. defective. By far the commonest causes of defective sight were due to hypermetropia, myopia, and astigmatism. Hypermetropia was much the commonest of the three varieties, and was always congenital, as was also astigmatism. Hypermetropia often produced symptoms of eye strain, induced headache, and rendered school-work an effort. The disabilities arising in after life from failure to detect this condition in childhood were dwelt upon at length by Dr. Meuzies. Myopia, he said, was a condition in school life which required the most urgent attention. Hypermetropia and astigmatic eyes were merely abnormal eyes, but the myopic eye was to be looked upon as a diseased eye. In the severe cases he advocated entirely oral instruction, or at most with the use of the blackboard and large writing only. For ordinary myopia, when short sight was not increasing, the wearing of suitable glasses, the teaching of proper habits in reading and writing, the encouragement of outdoor games, and the discouragement of eye work at home, especially by artificial light, were advocated. Myopia affected probably over 10 per cent. of school children in the towns, and a large majority of them obtained no medical assistance. He believed that much might be done to decrease this high percentage by attention to school hygiene in relation to this subject. The training of teachers to the comprehension of errors of refraction would be of great benefit, and the oculists previously mentioned recommended that in future the teachers should examine the distance vision of all children in their classes, and draw out a list of those with defective sight. He believed that it would be of great advantage if a few lectures on defective eyesight could be arranged for by the school authorities in each district, which would help to quicken the interest of the

teachers in this important subject. He considered the only rational sequence to compulsory education was the appointment of medical officers by the various school authorities, and was the only effective means of dealing with the problem. In most other countries of Europe and in Austria this course had already been taken, and in Brussels such appointments were made as long as twenty-five years ago. School hygiene in relation to eye-work had special reference to illumination of rooms, the type and paper of books, the style of writing, the form of desk and attitude of the children during reading and writing, and also an avoidance of fine work during early school life. Books should be chosen on the principle that paper and ink were cheap, while eyesight was priceless. The old form of sloping writing was objectionable. A suitable desk was that which, in addition to other requirements, prevented the child getting too near its work, viz. less than 12 or 18 inches. He endorsed the advice given to parents in the London School Board Report in reference to dealing with tradespeople who sold spectacles and professed to test eye-sight. Cohn found that many myopic children had been given glasses by opticians in Breslau, and nearly all of them were over-corrected, a very serious matter indeed for the myope.

Dr. WILLIAMS-FREEMAN (Andover) read a paper on "The Differences in Vision between Country Children and Londoners." He narrated how, in 1895, the Education Department requested Mr. Brudenell Carter to investigate the state of vision of London school children. The report was published as a Parliamentary paper in 1896, and, according to Mr. Carter's summarised findings, 34 per cent. of the boys and 45 per cent. of the girls had deficient vision in both eyes. The cause of this high subnormality was chiefly found in the general environment of town children, and there was no evidence to show that children's eyes were "in any way injuriously affected by the conditions of elementary school life." The Education Department being desirous of more information upon the point, investigations in country schools were set on foot. A circular to managers and teachers on the eyesight of scholars in schools in large towns was the result of its deliberations; but as no special Report on the figures for country schools had been drawn up, he (Dr. Williams-Freeman) brought forward the results of his examinations of schools in North-West Hants, which included small towns and villages and rural districts. Of 1442 country children tested 932, or 64·5 per cent., had normal vision in both eyes. Of the 8125 London children examined, 3181, or 39·15 per cent., had normal vision in both eyes. Normal vision in both eyes was found in 543 out of 716 boys, a percentage

of 76 per cent. in the country, as against 44 per cent. in London, and in 389 out of 726 girls, a percentage of 54 per cent., as against 33 per cent. in London. On comparing the amount of vision possessed by the "subnormals" the country children had a great advantage, no less than 68 per cent. of them having vision of $\frac{3}{10}$ or more in both eyes, as against 28 per cent. amongst the Londoners. He found in the course of his investigations amongst normal eyes several cases where the acuteness of vision was increased, $\frac{2}{10}$ being seen, and the teachers reported two or three other instances. One boy had vision of $\frac{6}{10}$. In comparison with Bradford boys and girls the Hampshire girls were about the Bradford standard, but the Hampshire boys were far above it. Recent London School Board returns showed that of 206,121 children of all ages, 25,468 had vision equal to $\frac{2}{10}$ or less, *i.e.* 12.4 per cent. Of the 1442 Hampshire children only 43, *i.e.* just 3 per cent., had vision below $\frac{2}{10}$. The superiority of boys' eyesight over that of girls was well known—it was even more marked amongst the country children than amongst the Londoners. With regard to the amount of vision possessed by the "subnormals," it was curious to find that the boys on the whole where they did fail failed more decidedly than the girls. As there was no reason to believe that there was any congenital tendency to abnormal development of the eye peculiar to the female, it was obvious that the large excess of hypermetropia and myopia, trebled in the former and quintupled in the latter, noted in his cases must be due to the girls' environment during childhood, and any adverse conditions might be expected to be especially active during the years of school life. He dismissed the idea that needlework, lessons of which were of short and infrequent duration, was at the root of this. He imagined the cause must be sought, as Mr. Carter had suggested, in their general out-of-school life—the absence of games requiring accuracy of vision and rural pursuits. He also drew attention to book-reading and needlework as amusements for girls by insufficient light by day and night in the cottages in place of outdoor pursuits. He thought that such injury as school work does to children's eyesight was to be traced to the preparation of lessons at home by artificial and insufficient light rather than to the conditions of the schools themselves. Deterioration of eyesight in cities was a well-established fact, and it would continue to deteriorate with the increase of artificial conditions of life, and he thought that even amongst country children the general standard of eyesight might be improved. He advocated amongst other things that girls should be encouraged in all healthy out-of-door games

and sports where a "good eye" is required, so that the movement which has already resulted in so much physical improvement amongst girls of the richer classes may be extended to the poorer. He also would like to see the appointment of medical officers for schools by the County Councils and other educational authorities.

Dr. PERCY LEWIS (Folkestone) thanked Dr. Menzies and Dr. Williams-Freeman for their very interesting papers, which were as instructive and attention-compelling as any which could be heard at any of the London or other medical societies.

Mr. CHARLES McCORMACK (Bootle) thought that all plans for new schools should be submitted to an ophthalmic surgeon for his advice as to the lighting of the building.

Dr. MENZIES, in his reply, regretted that so little had been done in this country for children with defective eyesight, and that no serious attempt had been made to treat them.

Dr. WILLIAMS-FREEMAN replied to a question by Mr. Councillor Bacon (Poplar), and the work of the section was brought to a successful close by a vote of thanks to the President, which was proposed by Mr. CHARLES JELF, M.A. (Folkestone), and seconded and carried with acclamation. In proposing the vote of thanks Mr. Jelf said that he did so with the greatest pleasure, because he had not only had the opportunity of appreciating his courteous conduct of the discussions, but having Sir George as a visitor in his house, he had had the advantage of listening to his genial arm-chair conversation, and he had stored his mind with much valuable information.

Abstracts from Current Literature.

Medicine.

Case of hæmorrhagic poliomesencephalitis of Wernicke, showing Benedict's inferior syndrome (*Revue Mensuelle des Maladies de l'Enfance*, vol. XXII, p. i, January, 1904).—A. Combe records at length a case of the above, and gives an able exposition of the means of arriving at a diagnosis in allied conditions. The patient, a boy aged 2 years, developed, after a severe attack of influenza, a right hemiparesis with ophthalmoplegia on the opposite side. Some months later choreiform movements appeared in the weak limbs, as did overaction of the left sixth and seventh nerves. The ophthalmoplegia was at first partial and incomplete, but later became total and incomplete. Partial, incomplete weakness of the right third nerve appeared later. In other words, the patient presented, in addition to Weber's syndrome, three additional phenomena—choreiform movements in the weak limbs.

spasm of the left sixth and seventh nerves, these signs pointing to an irritative lesion, and affection of the right third nerve, pointing to an extension of the lesion to the opposite side. The combination of hemiparesis with an opposite infranuclear facial paralysis, which goes under the name of the Milliard-Gubler syndrome—a variety of Nothnagel's syndrome,—pointed to a lesion in the upper half of the pons; the ophthalmoplegia to another lesion higher up in the mesencephalon. After fully discussing the characters and associations of the signs, the author pronounces the lesion to be a mesencephalitis. Benedict recorded in 1889 three cases showing what may be called an alternating hemichorea, the signs being Weber's syndrome, with irregular movements in the paralysed muscles. Four years later Charcot published another case and emphasised the great prognostic difference between Weber's and Benedict's syndrome, the one being due to a paralytic lesion and the other to an irritative one only. In 1900 Gilles de la Tourette published two other cases. The case now under discussion is the first to be recorded showing the combination of Benedict's and Milliard-Gubler syndromes. The author proposes to call such signs the *lower* syndrome of Benedict, in contradistinction to the *upper* syndrome which was the one present in Benedict's original cases. Both syndromes have reference only to the position of the lesion, not to its nature, the superior syndrome occurring when the lesion is in the cerebral peduncle, the inferior when the lesion is in the upper half of the pons.

A. ERNEST JONES.

Benign course of a pneumococcic cerebro-spinal meningitis (*Revue Mensuelle des Maladies de l'Enfance*, vol. xxii, p. 20, January, 1904). **B. Auché** reminds us that the usual course of such a meningitis as the above, especially when it is of meta-pneumococcic origin, is usually severe, and runs to an early fatal termination. He quotes Concetti as remarking that a meningitis lasting more than three weeks cannot be a pneumococcic one, and, if not tuberculous, is usually due to Weichselbaum's meningococcus. The writer then records fully a case in which meningitis was the sequel to a slight broncho-pneumonia; the course was benign throughout, and, after four or five weeks, ended in complete recovery. Repeated rachidocentesis was resorted to, this being also the means of establishing the diagnosis.

A. ERNEST JONES.

Perforation in typhoid fever (*Archiv. of Pediatrics*, March, 1904, p. 195).—**Jopson** reports a case in a boy, aged six years, who was admitted into hospital as a case of peritonitis. Vomiting had begun the day previously. The breathing was almost entirely thoracic. Liver dulness was absent. The abdomen was distended, generally rigid, and tender, especially in the right iliac fossa. The temperature had fallen. On opening the abdomen it was found full of purulent fluid, with a slightly faecal odour. The perforation was in the ileum, about eight inches from the colon. The appendix was normal. Death occurred seventy-two hours later, as a result of the fever and the peritonitis. The perforation was found firmly occluded. The writer points out that perforation is less common in children than in adults, especially in young children, that the symptoms are much the same as in adults, and that the prognosis is rather better.

EDMUND CAUTLEY.

Suppression of urine for seven days from toxic nephritis (*Medicina Contemporanea*, 1904, No. 11).—A girl, aged 2 years, took into

her mouth a paper of 15 grains (1 gramme) of sublimate by mistake for calomel. There was no reason to suppose that any was swallowed. Large ulcers formed in the mouth. That day 80 grammes of cloudy urine were passed, with hyaline or granular casts and much renal epithelium. After taking in all 5 litres of milk, on the seventh day urine was passed into the bed; on the eighth 500 grammes, with 3 per cent. of albumen; this decreased and finally disappeared. The general condition was good throughout. There was no fever and hardly any complaint of lumbar pain.

T. P. BEDDOES.

Chronic interstitial nephritis in the young ('*Amer. Journ. Med. Sciences*,' June, 1904, p. 1056).—Hirsh refers to the reasons of the rarity of this disease in the young, and points out that it is more frequent in females than in males, contrary to what is seen in adults. Heubner collected sixty-five cases from his own practice and hospital records. Ashby and Wright have recorded five, Guthrie seven, Steiner and Neunretter six cases. Possibly some of these are included in Heubner's list. Kidney affections are not uncommon in early life, especially after scarlet fever and other infective diseases. Acute nephritis is not uncommon as a result of gastro-enteritis in infants (Epstein and Koplik); may follow varicella (Henoch), vaccination (Perl), pertussis (Mettenheimer), influenza (Freeman), pneumonia (Holt), impetigo (Filia). The chronic affection has been ascribed to congenital syphilis (Sutherland and Walker), and to inheritance (Weigert, Baginsky, Westphal, Arnold). Bright's disease has been noted in four generations by Dickinson: in eighteen members of a family during three generations (Pel), and in eighteen cases in three generations (Romme). Hirsh reports two cases. A boy, aged 15 years, who had had measles at 6 years and varicella at 8 years, came under him for uncontrollable hæmorrhage after tooth extraction. He had had no previous hæmorrhage and there was no history of hæmophilia. For one year he had been ailing, with anorexia, restless nights, and nocturnal micturition. Headaches had come on recently. The heart was enlarged, pulse tension somewhat raised, and the urine, sp. gr. 1012, contained a small amount of albumen, variable and not always present, and a few hyaline and granular casts. Death resulted from dyspnoea and cardiac failure five weeks after admission into hospital. The kidneys showed an advanced stage of chronic interstitial nephritis, with adherent capsule and many cysts, and well-marked arteriosclerosis of the aorta. Atheromatous changes have been noted in very early life—in an eight-months foetus (Ballantyne), in boys aged 3 to 13 years (Marfan), in a child of 2 years (Samme). An aortic aneurism has been reported by Samme in a boy aged 13 years. Hirsh's second case was a girl, aged 18 years, who exhibited at the autopsy hypertrophy of the heart, congestion of the lungs, chronic interstitial nephritis, healed Pott's disease, and congenital narrowness of the aorta and renal arteries. The relationship between congenital narrowness of the aorta and arterial system and primary atrophy of the kidney has been noted by Lancereaux, and by Besançon and Poillon. The writer gives a table of the size and weight, etc., of the kidneys in some recorded cases of chronic interstitial nephritis, and a useful bibliography.

EDMUND CAUTLEY.

Frequent micturition and enuresis in children ('*Jahrbuch für Kinderheilkunde*,' vol. VIII, p. 795; '*Revue des Maladies de l'Enfance*,' vol. XXII, p. 94, February, 1904).—O. Reinach publishes two interesting cases

both of which were manifestly hysterical, and the daughters of hysterical mothers. The first was a girl, aged 2 years, who was affected with polyuria consequent on a terrifying dream. She micturated twenty-five to thirty times in the twenty-four hours, as often in the day as at night, and had no power of resisting the desire. This lasted for two months, but then was cured completely by a single application of painful Faradism. The second case was a girl, aged 10 years, who was similarly cured. A. ERNEST JONES.

Tuberculous peritonitis ('*Amer. Pract. and News*, April, 1904, p. 225). =Weidner regards tuberculous peritonitis as rarely primary, and usually secondary to disease of some abdominal or distant organ. Of the primary causes he mentions disease of the mesenteric and retro-peritoneal glands, of the tubes and ovaries, of the tonsils and lymphoid tissue of the naso-pharynx, of the bronchial glands, and of the lungs, pleura, bones, joints, etc. The condition is usually lymphogenous, occasionally hæmatogenous. He adopts the usual classification into three varieties. Abscesses may form in the peritoneal cavity and burst externally, especially at the umbilicus. Tuberculin and the agglutination test may be of value in diagnosis. His treatment consists of rest, diet, air, sunlight, climate, general hygiene, and drugs. The diet should contain an excess of proteid food. Of drugs he recommends iron, cod-liver oil, hypophosphites of sodium and calcium; creasote and guaiacol in egg emulsion; ichthyol, benzosol, guajalin, euophen, iodoform, etc. He uses injections of euophen or iodoform, in the proportion of 2 drs. to 1 oz. each of *sapo viridis* and vaseline or olive oil, 1 dr. being rubbed into the abdomen daily. Operative treatment is indicated in suitable cases. Reference is made to Sir Richard Thorne Thorne's statement that abdominal tuberculosis in children had increased 20 per cent. This is unfortunate, for it has been shown time after time to be based on erroneous statistics, and yet it is constantly quoted. A full discussion on the subject of tuberculous peritonitis is published in the third volume of the 'Reports of the Society for the Study of Disease in Children,' pp. 54—134, and should be read by all who are interested in the subject. EDMUND CAUTLEY.

Pathology.

A year's experience of lumbar puncture ('*Gazette des Hôpitaux*, No. 73, June 28, 1904, p. 725).—A. **Chauffard** and L. **Boidin** publish a valuable article giving the results of a series of examinations of the cerebrospinal fluid in 140 patients. Five cubic centimetres were centrifugalised for fifteen minutes, the sediment mixed, and three slides examined. The reaction was considered a positive one when more than five cells were seen per field, an immersion lens being used. The results may be summarised thus: (1) *Tabes*: Of eleven cases lymphocytosis was present in nine. Of the other two the Argyll-Robertson sign was absent in one. In addition a marked lymphocytosis was found in several suspicious cases of *tabes*, thus adding gravity to the prognosis. (2) *General paralysis of the insane*: In nine general paralytics abundant lymphocytosis was invariably found, being twice complicated by a polymorphonuclear leucocytosis. (3) *Argyll Robertson's sign*: The authors confirm the correlation, pointed out by Babinski, Widal and others, between this sign and the meningitic reaction. This reaction was present in fourteen out of the seventeen patients who showed the sign, although their conditions were very diverse. (4) *Tuberculous meningitis*:

In thirteen cases the reaction was constantly present. Polymorphonuclear leucocytes were present in a greater number than the lymphocytes in only two cases. Koch's bacillus was found nine times. In several of the cases the diagnosis was first made by the examination of the fluid. (5) Cerebro-spinal meningitis: The reaction, a polymorpho-nuclear one, was present in every one of three cases. Diplococci were found in large numbers in the only fatal case. (6) Zona: The reaction was present eight out of nine times. The ninth case was one of acute bronchitis with only a slight herpes. (7) Syphilitic hemiplegia: The reaction was present in both of two cases. (8) Disseminated sclerosis: The reaction was absent early in a case, but developed after a couple of months. (9) Negative results were obtained in two cases of tumour cerebri, in three cases of idiopathic epilepsy, in two cases of carbonic oxide intoxication, in one of sunstroke, and in two of facial herpes. (10) The authors lay most stress on the value of the procedure in meningeal hæmorrhages. Blood was withdrawn in every one of four cases of purely meningeal hæmorrhage and of ten cases of cerebro-meningeal hæmorrhage. They attribute both a diagnostic and therapeutic value to its application in such cases. (11) Meningitis of mumps: The reaction was marked in three cases observed of this nature. Headache and slow pulse in mumps should lead at once to a lumbar puncture being made. On the negative side the authors have found the absence of the reaction most valuable in excluding meningitis in such cases as typhoid, pneumonia, etc. The duration of the reaction may be as short as twenty-four hours, as in a case of zona, or as long as eight months, as in a case of meningeal hæmorrhage. The median method of puncture is advocated so as to avoid the formation of a hæmatoma, which in one of the cases was autogenously infected. Vomiting occurred three times out of 223 punctures. No other adverse symptom was ever observed.

A. ERNEST JONES.

Influenzal meningitis (*Jahrb. f. Kinderheilkunde*, June, 1904).—**I. Jundell** records two cases in one of which the influenza bacillus was isolated during life from the cerebro-spinal fluid. The first case was that of a female infant, aged 8 months, who came under treatment for vomiting and constipation. On the sixth day of the illness, meningeal symptoms developed and a diagnosis of cerebro-spinal meningitis was made. On the sixteenth day a quantity of purulent cerebro-spinal fluid was drawn off by lumbar puncture. Cover-glass preparations revealed the presence of Pfeiffer's influenza bacillus, and the same organism was obtained by culture on blood-agar. A post-mortem examination was not made. The second case was that of an infant aged 1 year, who had been ill since the age of three months. The child, which came under observation for broncho-pneumonia, shortly afterwards developed symptoms of meningitis and died. At the autopsy the greater portion of the surface of the brain was found to be invested with a layer of greenish-yellow fluid exudate. Broncho-pneumonia was present, and, in addition, chronic double otitis media. Film preparations from the meningeal exudate showed typical Pfeiffer's bacilli. Cultures on agar and blood-agar proved negative. The writer considers the first case to have been one of primary influenzal meningitis. In the other case the meningeal lesion was probably secondary to an influenzal broncho-pneumonia.

E. P. BAUMANN.

Clinical researches and considerations on the quantity of chloride of sodium contained in the cerebro-spinal fluid of sick children

(*Il Morgagni*, anno xlv, parte 1, No. 1, p. 38, Janv. 1904; '*Gazette des Hôpitaux*,' 1904, p. 220).—**Domenico Crisafi** examined the cerebro-spinal fluid removed during life from nineteen children suffering from various diseases. The quantity taken varied from 12 to 50 or 60 c.c. The quantity of sodium chloride was greatest in cases of broncho-pneumonia, especially in the acute stage; less in those diseases (*e. g.* meningitis) in which the fever is less intense or the course subacute. Increase of sodium chloride was often accompanied by increase of the cerebro-spinal fluid itself, but this was not invariable, and was not constant in the same case, and the relation might even be reversed.

S. H. BOWN.

Therapeutics.

Biological considerations on infant feeding (*Arch. de Méd. des Enfants*, 1903, No. 7, p. 385).—**E. Moro** gives the biological reasons why he considers that it will always be impossible, in spite of various artifices, to replace the mother's milk with milk having the same nutritive value and obtained from another species. He recalls the classical experiments of Bordet, who, by injecting milk of one species into the body of another species, obtained from the blood of the latter animal a substance that he called precipitin, which has the power of precipitating the albumins in the milk of the first species. Moro looks upon this precipitin as an antibody such as is only formed when a poison is introduced into the body, and so argues that milk from a foreign species is a poison. Hamburger claims that the albumin of such milk acts as a poison on the intestinal epithelium, so that a bottle-fed baby has to manufacture an antibody in its intestine to neutralise this poison before he can start the work of digestion and absorption. Moro has proved by a series of experiments that the serum of an infant at the breast is more bactericidal than that of an artificially fed infant. Wassermann explains this by assuming that in the artificially fed infant a part of the alexins go to neutralise the albumen of the milk, so that the blood contains less. Moro also finds that there is no digestion leucocytosis in breast-fed infants, and correlates the occurrence of this phenomenon in artificially fed infants with the production of an active immunity against the albumin of the foreign milk. In support of this is the fact that after a time even artificially fed infants show no digestion leucocytosis, which is explained by assuming the production of a true immunisation.

A. ERNEST JONES.

Care of premature infants (*Amer. Journ. of Obstetrics*, etc., June, 1904, p. 771).—**Blair** insists on the importance of attention to minutiae, and that all premature infants should at first be treated on the same lines as the most delicate ones. The child, unwashed, should be smeared with warm oil, wrapped in absorbent cotton-wool, and put in an incubator, the temperature of the air being warm and moist, and at 100° F. at first. If the child is restless or its temperature rises above 102° F., the temperature of the incubator must be lowered. A drink of water should be given five to six hours after birth. For resuscitation of the most delicate he recommends suspension with the head downwards, alternate compression and expansion of the chest, alternate hot and cold douching, and injections of strychnine, $\frac{1}{10000}$ gr. per lb. weight. The signs of want of artificial heat are crying, becoming blue and green, and fall of temperature. The gradual cessation of crying is a bad sign, death ensuing in a few hours if nothing is done. The tem-

perature of the child should not be allowed to fall below 99.5° F., unless the child sweats freely. Quiet sleep and crimson colour are indications of well-being. Restlessness and rise of temperature show that the heat is too great. Pallor or bluish-green colour, crying, drawn-up knees, and fall of temperature show that the heat is too low. Cold extremities may be due to too low an incubator temperature, to colic, or to a bad circulation. For food the writer prefers the breast-milk of a woman with a child of one to three months old, diluted at first. If this is not available he uses a milk mixture of soluble proteid 1 per cent., fat 2 per cent., sugar 6 per cent., peptonised for forty minutes and diluted with 6 per cent. sugar solution. Beef peptone or panopeptone may be given in doses of 1 to 5 drops. Food should be given slowly through a medicine-dropper. Asepsis is most important. As stimulants, he advises bathing, which must be done very cautiously. The water should be at 100° F. to 103° F., and the bathing should not last more than three minutes. Other stimulants are whisky and strychnine. Castor oil and paregoric are useful for colic and indigestion. The writer gives very good directions, but does not lay nearly enough stress on the extreme importance of handling premature infants as little as possible.

EDMUND CAUTLEY.

Surgery.

Suprapubic cystotomy for a foreign body (*Société d'Obstet., de Gyn., et de Pédiatrie de Bordeaux, July 28, 1903; 'Journal de Méd. de Bordeaux,' 1904, p. 468*).—**Rocher** read an account of a girl aged $5\frac{1}{2}$ years who was brought to him with a hair-pin in the bladder. He had several times previously removed such a body from the bladder with Guyon's crochet or by other simple manœuvre. On this occasion, however, all such attempts failed even under chloroform. Suprapubic cystotomy was therefore resorted to, with a successful result. The pin was fixed in the wall transversely.

A. ERNEST JONES.

Loss of cerebrospinal fluid from wound of the dura mater (*'Archivio di Orthopedia,' No. 2, 1904*).—**Buschi**.—A boy of 6, on August 30th, was wounded in the back with a pair of scissors. He fell down and could not rise. As he could not stand and had continued headache advice was sought: he was admitted to hospital on September 4th. He was sensible and readily answered questions. Axillary temperature 36.6° C, pulse 80, full and regular. Complained of frontal headache and inability to stand on account of vertigo. The wound was over the interspace between the sixth and seventh vertebrae, 4 mm. from the middle line, 1 cm. long, with its axis transverse: from it dropped a clear yellow fluid, alkaline, with trace of albumen, no sugar, containing only white corpuscles. September 5th, the evening temperature was 38.5 (101.3° F.), the headache increased, and the patient did not wish to eat. Sleepy, complaining of vertigo on movement: lying with his face on the pillow and head bent back. 6th, was weaker and more sleepy: answered badly: passive movement of the head caused diffuse pain in the front of the neck. Kernig's sign was present. The erect position caused instant vertigo. The superficial reflexes were increased: the deep reflexes, especially the tendo Achilles and triceps brachialis of both sides, were weak. Babinski's sign was present on the right side. It was calculated that the daily loss of fluid was from $17\frac{1}{2}$ to 20 drams—70 to 80 grammes. Food was refused and nutrient enemata used. The patient became worse and was semicomatose. On account of

the constant vertigo and the similarity between the symptoms and those due to lumbar puncture, it was concluded that the symptoms were due to loss of cerebrospinal fluid. Operation under chloroform, a probe was passed to facilitate finding the wound of the dura, which was exposed by resecting the laminae of the sixth and seventh vertebrae. The wound had passed from below upwards, slightly inwards, avoiding bone; clear fluid could be seen issuing from the dura some mm. to the right of the middle line; was the size of the point of a director; it was closed with an intestinal needle and "catgut" by the Lembert sutures; a fine gauze drain was left in contact with the dura; the muscles, aponeurosis, and skin sutured. After the operation (September 7th) the patient lay on his back without trying to turn on his face. The temperature was 38.2° C., pulse 120, small, regular. A fairly quiet night was passed. In the morning (8th) he took coffee and milk; pulse 110, temperature 37.1° C. During the day condition improved; there was not so much headache. Evening temperature 37.8° C. September 9th, ate with appetite; lay on his back or side; no pain in head or wound. Pulse 100; morning temperature 37.2° C., evening 37.5° C. 10th, Kernig's sign remained. When standing up he was fairly steady, without vertigo or headache; the reflexes were as before; Babinski's sign remained on the left; rigidity of the neck almost gone. 11th, the dressing was quite dry; the drain removed. There was steady improvement; appetite good; intellect the same. Kernig's sign disappeared; Babinski's sign detected on the right; no pain in any position; neck not rigid. Sutures removed on the 14th, the wound being healed. Next day walked without help, with a slight spastic gait. This had almost gone when discharged on the 28th, and had quite gone a week later. The author quotes six cases of loss of cerebrospinal fluid not complicated by injury to the cord. The English cases are those collected by T. Holmes ('Med.-Chir. Trans.,' 1882, p. 155), which contains the only case not complicated by injury to bone. Reference is made to Mathieu: 'Les Ponctions Rachidiennes Accidentales.' Masson: Paris, 1902.

T. P. BEDDOES.

Cartilaginous and bony nodules in the tonsils ('*Monatsschrift f. Ohrenheilkunde*, No. 8, 1903).—Karl Reitmann finds that the occurrence of these nodules in the tonsils is by no means uncommon. The cartilaginous bodies or their derivatives are met with either in the tonsil itself or in its immediate neighbourhood. As a rule it will be found that the cartilage is of the hyaline variety, and that it does not present the richly cellular character of embryonic cartilage. Frequently signs of degenerative changes may be noted. The nodules were found by Reitmann always lying free in the connective tissue. Many varieties in shape are presented by the nodules, from round to long, and even Y-shaped. As they have been found in an embryo it may reasonably be supposed that they are derived from the second branchial arch (H. Walsham), but of this no direct proof is to hand. As to whether these probably foetal remnants ever lead on to the formation of enchondromata or osteomata of the tonsil we do not know. Certainly these forms of tonsillar tumour are extremely rare.

DAN MCKENZIE.

Epithelioma of the parotid gland in a child of six years (*Société des Sciences Médicales de Lyon*, December 23, 1903). Jambon.—The case is interesting on account of the characters of this malignant new-growth at such an early age. Apart from the clinical appearances the diagnosis of epithelioma was certified by the microscopical examination,

which showed the tumour to be composed of very large cells of an outline so indefinite as to give the impression of a great protoplasmic mass containing nuclei. The general arrangement was in alveoli. The impression obtained from the histological inspection was one of great malignancy. The growth was successfully removed.

DAN MCKENZIE.

Spontaneous dislocation of the hip following on acute childish illness (*La Clinique Infantile*, February 15, 1904, p. 97).—**Kirmisson**, in his *Leçon Clinique*, at the Hôpital des Enfants Malades, remarked that he only wished to discuss such pathological dislocations as were of sudden occurrence, not those which were the result of long-standing disease (tuberculosis) or such as were due to traumatic or congenital causes. He instanced the case of a girl, who at 12 was seized with a sharp attack of chorea. Up to that age she had been a normal healthy child, born of healthy parents. Her movements were so violent that some muscles of the lower jaw were injured. In the course of the illness she developed an apical murmur; the right knee and left hip became very painful, inflamed, and swollen, and turbid fluid was evacuated. The left limb, moreover, took up a position of adduction and inward rotation, and the femoral head could be felt in the iliac fossa. No attempt was *then* made to reduce the dislocation, as cellulitis appeared in the left thigh. Five months later, however, the child returned to the hospital for the operation; exact measurements were taken; there was a shortening of 5 cm. and other classical signs of dislocation. In discussing the case, Kirmisson said he saw absolutely no grounds for ascribing the dislocation to the chorea proper; moreover that had subsided before the dislocation took place. The child had a suppurating ingrowing toe-nail, and this would be a starting point for the endocarditis (evidenced by the murmur) and other affections. He therefore considered that the real cause was a septic infection, *i. e.* rheumatism. There were, moreover, streptococci present in the fluid withdrawn from the joints, which further proved the infective origin. He quoted many instances of dislocation following infectious fevers, typhoid being the most common cause, and the hip the joint affected, with but few exceptions. The displacement was generally backwards into the iliac fossa. Kirmisson quoted two theories as to the pathology: (1) Petit thought it due to a hydrarthrosis, entailing loosening of the ligaments and subsequent operation of the articular surfaces; (2) M. Verneuil attributed the cause to a disturbance of the equilibrium of the hip muscles, the weakened condition of one group involving the over-action of their antagonists. Kirmisson himself thought that the intrinsic cause was the toxin of the infection itself, which caused early erosion of the joint-capsule and bony tissue, as shown in the radiogram of the case in question. The other changes would follow. The *prognosis* he considered distinctly good if no force were used in the reduction. The resistance of the muscles should merely be leisurely overcome by careful consecutive movements of flexion, abduction, and circumduction.

A. T. BARNARD.

Lip-tie (*Annals of Surgery*, March, 1904, p. 433).—**F. Griffith**, of New York, draws attention to the rare occurrence of a condition of lip-tie, analogous to that of tongue-tie. A fold of mucous membrane extends, in the middle line, between the lips and gums of the upper and lower jaws. These folds are known as the superior and inferior fræna of the lips. He records a well-marked case of the condition in the upper lip of an Italian infant. The treatment is similar to that adopted for the cure of tongue-tie.

EDMUND CAUTLEY.

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Original Articles.

GONORRHOEAL SALPINGITIS IN A CHILD AGED SIX;
REMOVAL OF TUBES.*

By LEONARD A. BIDWELL, F.R.C.S.,
Surgeon to the West London Hospital, etc.

Ox June the 20th, 1902, I was asked by Dr. L. Times to see a little girl aged 6, who was suffering from inflammation of the vulva and painful micturition. The little patient had recently come from South Africa, and there was some suspicion in the parents' minds that she had been assaulted by a Kaffir. Against this view it was noted that the discharge had not been noticed till a month after leaving their home. The child looked rather delicate. There was no elevation of temperature and no enlargement of the inguinal glands. There was some superficial ulceration inside the vulva extending towards the urethral orifice. Examination was very difficult, as the parts were tender. There was considerable pain after micturition, and blood with the urine. I was inclined to think the case one of simple ulceration, and ordered some simple astringent. On June the 25th I was again asked to see the child on account of a painful swelling in the right foot. There was redness and œdema

* Read before The Society for the Study of Disease in Children, April the 15th, 1904.

over the flexor tendon sheath, and pain on movement. The temperature was 102° F. The discharge was about the same. On the following day, as the temperature was still high and the foot was more swollen and the pain more acute, an incision was made and some clear fluid evacuated from the tendon sheath. The wound was closed and dressed antiseptically. At the same time the ulceration in the vulva was mopped with pure carbolic acid, and on further examination it was found that the pus was issuing from the os uteri. The temperature did not fall after this incision, although all the pain was reduced, but on June the 28th the discharge became rather less in quantity and the child complained of abdominal pain. On June the 29th the temperature rose to 103° F., and the patient had severe pain in abdomen. There was rigidity of the right rectus and swelling to the right of the middle line in the hypogastric region; this was very tender but was not dull on percussion. There was retention of urine. On June the 30th the temperature fell to 100° F., and the child was much better after a thorough evacuation of the bowels. There was less discharge, and the abdominal swelling was less distended. Nothing was felt per rectum. Mr. Watson Cheyne kindly saw the patient with me, and he came to the conclusion that the case was one of gonorrhœal salpingitis, and that it was partially subsiding. An examination of the discharge made by Dr. Eastes showed gonococci in considerable numbers. The child seemed to improve considerably for three days and the pain was much less, and the temperature remained normal till July the 4th, when she again had irritability of the bladder and some pain; the temperature rose to 101° F., the discharge was less in quantity, and the foot was completely well. On the following day the temperature rose to 102° F., and the child was in great pain. On rectal examination the swelling was felt on the left side of the pelvis, very tender to the touch. On July the 8th the temperature remained up at 102° F., the pain was more severe, and the pulse rate was 120 to the minute; the abdomen was slightly distended and the swelling was distinct.

The patient was restless and refused nourishment. It was, therefore, decided to operate, and on July the 8th the child was anaesthetised by Mr. J. H. Chaldecott, and the abdomen was opened in the middle line above the pubes. There was some slightly purulent fluid in the peritoneal cavity, and some flakes of lymph on the intestines. A dense mass was felt on either side of the pelvis, and on separating adhesions pus escaped: both tubes were found to be full of pus, and so were removed after ligature of their ends close to the uterus. The ovaries were left. The pelvis was sponged out and

a rubber drainage-tube inserted. The patient was rather ill for the first few days, but then made an uneventful recovery, and went home on July the 30th with the wound quite healed. The vaginal discharge, however, did not completely cease, and on bacteriological examination it was found to still contain gonococci. The child was, therefore, again put under chloroform on September the 17th, and as the discharge was found to be coming from the uterus, the os was dilated and the uterus curetted. Within a week the discharge had ceased, and I heard some months later that she was in perfect health.

The case presents several points of interest. I believe that gonorrhœal salpingitis is very rare at such an early age, and the course of the disease appears to be rather more acute than in adults. The child was very ill indeed before the operation, and, indeed, I gave a very bad prognosis before operating. I do not think that an operation should be done in such a case until all hope of cure by other means has been abandoned, since the functional result must be sterilisation. I left the ovaries in the hope of avoiding any arrest in the development of the child. It is interesting to note that the discharge did not stop after salpingectomy, but persisted until the uterus had been curetted. The lesson of the case seems to be that in a case of vaginal discharge which is proved to be gonorrhœal, the patient should be anæsthetised, and if it be found that the discharge is coming from the uterus, the os should be dilated and the uterus curetted; in this way any extension to the tubes should be avoided.

This case is further interesting on account of the acute inflammation of the tendon sheath of the right foot, which was undoubtedly a form of gonorrhœal rheumatism.

GONORRHOËAL INFLAMMATION OF THE UTERINE APPENDAGES IN A GIRL OF $3\frac{1}{2}$ YEARS DETECTED BY BIMANUAL EXAMINATION; SPONTANEOUS RECOVERY.

By GEORGE CARPENTER, M.D.

MARY W—, aged $3\frac{1}{2}$ years, was brought to the Out-patient Department at the Evelina Hospital on November the 3rd, 1898, for advice

* Read before The Society for the Study of Disease in Children, April the 15th, 1904.

as to a vaginal discharge of six weeks' duration ; for pains in the lower part of her abdomen, which was not swollen ; and for frequency of micturition.

The pus from the vulva contained numerous gonococci.

On a bimanual examination of her pelvic viscera being made by way of the rectum the uterine appendages were found to be involved.

On the right side there was felt an irregularly shaped elastic tumour attached to the uterus at the upper part, and from which it could not be differentiated. Its free extremity was movable. It presented a central depression, and measured, at a guess, $1\frac{1}{2}$ inches or more lengthwise and $\frac{3}{4}$ ths of an inch across. Rolled between the fingers

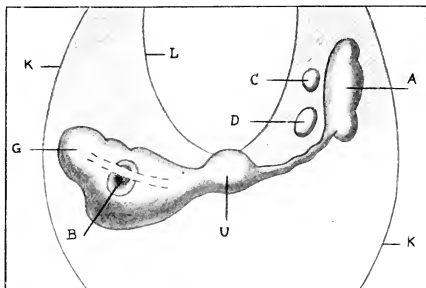


FIG. 1.—Condition of the pelvic genitalia as determined by a bimanual rectal examination on November the 3rd. A. Fusiform swelling in which the Fallopian tube terminated and behind it two rounded bodies D and C. B. Central depression. G. Irregularly shaped elastic tumour with an ill-defined cord upon it shown by the broken line. K. Pelvic brim. L. Fallopian ligament. U. Uterus.

of the two hands, there seemed to be an ill-defined cord upon it at one part, which might or might not have been the Fallopian tube, but if it were so, and that was open to considerable doubt, it was not enlarged. On the left side the Fallopian tube apparently ended in a fusiform swelling, which was attached to the side of the pelvis, and which was about an inch long and a quarter of an inch broad. This was probably the enlarged fimbriated extremity of the Fallopian tube. If it was the ovary, then that organ was decidedly enlarged for her age. Lying below this body were two rounded bodies, somewhat movable, one of them being about the size of a small pea, the other half that in diameter. The uterus felt natural except just where it

was attached to the tumour on the right side. All the parts had rather a woolly and indistinct feel, which was thought to be possibly owing to associated pelvic peritonitis.

On December the 1st the pelvic condition had considerably changed. The left ovary and Fallopian tube were found to be of natural size. The right Fallopian tube was decidedly enlarged, and associated with it was a very elastic tumour half an inch or more in diameter. The uterus was then normal to the feel. All parts were freely movable. There was still a purulent discharge from the vagina.

On January the 5th, 1899, the condition of the ovary and the Fallopian tube on the left side remained unchanged. Considerable improvement had taken place on the right side. The Fallopian tube

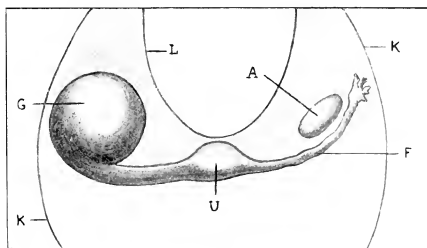


FIG. 2.—Condition of the pelvic genitalia as determined by a bimanual rectal examination on December the 1st. A. Left ovary. F. Left Fallopian tube, both of natural size. G. Elastic tumour on the right side associated with an enlarged Fallopian tube. K. Pelvic brim. L. Falciform ligament. U. Uterus.

was but slightly larger than natural, and the part in association with it already described, and which might or might not have been the ovary, was also much smaller, but still too large for a healthy ovary. The vaginal discharge was as bad as ever.

On April the 6th the os uteri was examined by a Fergusson's vaginal speculum, which was specially made for the purpose. There was no discharge from it, but the cervical mucous membrane was reddened, and had lost its sheen. The mucous membrane of the vagina was reddened in patches.

She remained under my care until December the 14th, during which time she passed through attacks of whooping-cough, measles, and varicella.

At the end of May there was a note to the effect that the discharge was less.

There are now a number of cases of localised gonorrhœal peritonitis in little girls on record, but none that I am aware of where bimannual examinations of the internal genitalia have been made during the course of these complications. I therefore record the case as an illustration of pelvic disease secondary to gonorrhœa, and also as an example of the value of bimannual examination of the internal genitalia in young children—a method which I have long advocated, and the technique of which I have described.* There is a further value attached to this case in that it shows that these conditions, at least in some instances, tend to spontaneous recovery, and that without such examinations cases are likely to be passed by. It is interesting to speculate on the effect such complications are likely to produce as regards future child-bearing. Sterility may possibly result in some instances. Marx† is of opinion that these infantile inflammations are apt to commence afresh at puberty, and often are the real cause of pelvic inflammations of newly-married women hitherto frequently credited to the husband.

Lastly, what is the correct interpretation of the information gathered from these bimannual examinations? I am of opinion that there was pelvic peritonitis, and I do not think there is any doubt about there being salpingitis—certainly on the right side and probably on the left. I do not feel quite clear as to whether the rounded tumour in association with the enlarged Fallopian tube on the right side, as described on January the 5th, should be looked upon as an enlarged ovary (oöphoritis) or as a localised distension of the Fallopian tube. If it was the Fallopian tube I did not detect anything at my examinations which was like an ovary. In any event there is no question that the uterine appendages in this case were attacked by gonorrhœal inflammation, and that they apparently spontaneously recovered from it.

* 'Pediatrics,' vol. i, pp. 491—500, "On the Value of Rectal Exploration as an Aid to Diagnosis in Diseases of Children."

† 'Gazette de Gynecologie,' November the 15th, 1895.

NOTES ON A CASE OF RENAL CALCULUS; NEPHROLITHOTOMY.*

By J. PORTER PARKINSON, M.D.,

Physician to the London Temperance Hospital, and the North-Eastern Hospital for Children; and

DOUGLAS DREW, B.S., F.R.C.S.,

Surgeon to the North-Eastern Hospital for Children, and to the Hospital for Women, Soho Square.

IN bringing this case before the Society, we do so, not because the symptoms of stone in the kidney in children present any characteristic differences from those associated with the disease in the adult, but rather on account of its comparative rarity in children, and also as this case presents certain rather unusual features.

T. M—, a boy aged $9\frac{1}{2}$ years, was admitted into the North-Eastern Hospital for Children, under the care of Dr. Parkinson, on August the 21st, 1902.

The following history was obtained :—Thirteen months previously the mother noticed that the child was passing blood in the urine; at the time the child appeared perfectly well. From that date onwards blood was passed in the urine at intervals, but no pains were complained of with the exception of a “gripping pain at the anus,” which did not appear to have any relation to the attacks of hæmaturia, although it commenced shortly after the first attack, and was present at intervals up to about two months before he was admitted to the hospital. At no time had the mother noticed the passage of any calculus.

State on admission.—The child looked healthy and was well nourished. The urine, which was acid, contained a large quantity of blood and some granular casts. This attack of hæmaturia had lasted a fortnight. During this period the child had played about as usual, and did not present any symptoms of renal calculus except the hæmaturia.

On examination of the abdomen there was some rigidity of the muscles on the left side, and on deep pressure under the kidney there was at times slight tenderness, but the kidney could not be felt.

The child was kept quietly in bed, and the blood rapidly disappeared, but on allowing the child to get up and play about the ward it reappeared.

A skiagraph, which unfortunately has been mislaid, gave clear

* Read before The Society for the Study of Disease in Children, March the 18th, 1904.

indications of the presence of a stone in the left kidney, although the shadow was not sharply defined or very intense.

Mr. Drew saw the case in consultation with Dr. Parkinson, and decided to cut down on the left kidney. This was done on September the 20th, 1902, through an oblique incision in the loin. The kidney was exposed and dislocated on to the loin, where it was carefully palpated, but, as is so frequently the case unless the stone is of large size, nothing could be felt.

The organ was split open along its convex border and the finger introduced into the pelvis, where the main calculus was felt and removed; many other minute calculi were felt, many of which were concealed in the recesses of the calyces, and it required the most careful attention to avoid overlooking some of these minute stones; to ensure that none had escaped removal the calyces were washed out with a strong stream of hot water, which also served the useful purpose of checking the free oozing from the incised cortex. A probe was passed down the ureter into the bladder, but nothing abnormal was felt. The kidney was then stitched up with catgut and returned, and the wound was closed in layers by silkworm gut, a drainage-tube being inserted down to the kidney; the tube was removed on the fourth day.

Considerable shock developed during the later stages of the operation, and persisted for some hours after the child was returned to bed.

During the first four days after the operation the urine, which was copious, was deeply stained with blood.

The child made an uneventful recovery, the wound healing by first intention.

The child was examined on January the 27th, 1904, and found to be in excellent health, and had had no return of the symptoms.

Characters of the calculi.—Sixty-seven calculi were removed; they were all of dark brown colour, irregularly rounded, with a smooth surface, and composed of uric acid, the largest measuring about half an inch in its longest diameter, and the others varying in size from that of dust shot to a hemp seed.

Remarks.—That stone in the kidney in children is very uncommon is evidenced by the following facts.

Ashby and Wright state in the last edition of their work on diseases of children that they have only performed nephro-lithotomy on two or three occasions.

Only one other case has occurred at the North-Eastern Hospital for Children since 1880, when the operation was first introduced. This case was operated upon successfully by Mr. Bilton Pollard.

These facts are somewhat surprising, considering the comparative frequency of vesical calculus in children. It would be interesting to know the ratio that renal calculus bears to vesical calculus both in the male child and the male adult. Doubtless it would be found to be very much smaller in children than in the adult.

Another condition that does not appear to influence the frequency of this disease is the frequent occurrence of the so-called uric acid infarcts in the kidneys of newly-born babies. Holt remarks on this fact and points out that renal calculus is extremely rare in infants.

The unusual features in this case, to which we would invite attention, are :

1. The profuse hæmaturia and its constant relation to the taking of exercise. Hæmorrhage is not usually a marked symptom, unless the calculus is of large size and very rough, whereas in this case the stones were small and smooth.

2. The absence of all other urinary symptoms except such slight tenderness that it was of doubtful significance. If the skiagraph had not indicated which kidney was at fault there would have been considerable doubt and the operation would have been purely of an exploratory nature. The ill-defined shadow in the skiagraph is explained by the composition (uric acid) and characters of the calculi.

3. Although more calculi than one are often present, yet it is most exceptional to find them in such large numbers (sixty-seven removed).

4. It might have been expected that some of these minute calculi would have escaped down the ureter, and would have been found in the urine, but this did not occur while the child was under observation in the hospital, and the mother had noticed nothing of the kind. Moreover if it had occurred it would probably have been associated with some pain or discomfort, even if the calculus was not large enough to cause actual colic.

THE DIAGNOSTIC VALUE OF A RECTAL EXAMINATION IN CHILDREN.

By P. LOCKHART MUMMERY, B.C., F.R.C.S.Eng.,

*Assistant Surgeon to St. Mark's Hospital for Diseases of the Rectum, and to
the North-Eastern Hospital for Children.*

THE importance of a rectal bimanual examination as an aid to diagnosis in obscure cases of disease in the pelvis or abdominal

cavity has long been recognised, and no examination of the abdomen or pelvis of an adult would now be considered complete without the rectum being explored with the finger.

It is certain, however, that the importance of a rectal bimanual examination in the diagnosis of the abdominal conditions of infancy and childhood is not sufficiently recognised as yet.

In the adult such an examination is necessarily limited more or less to the pelvis on account of the length of the examining finger. In infants and young children, however, while the length of the examiner's finger remains the same, the pelvis and abdomen are much smaller, and consequently it is possible by a bimanual examination to investigate the condition of the whole of the lower part of the abdominal cavity and to feel well into the flanks. So that a rectal bimanual examination is of relatively much greater value in children than is the case with adults.

Added to this there is the fact that an abdominal examination is often very difficult, if not impossible, in a child. Without an anæsthetic, it is impossible as a rule to get the abdominal wall relaxed in children, and in any case the relatively small size of the abdomen makes an examination difficult.

The great value of a rectal bimanual examination in children was first pointed out by Dr. George Carpenter in 1896, in a paper in 'Pediatrics.'* In that paper he drew attention to the value of this method of examination in all abdominal and pelvic conditions in children, and recommended it as a routine practice.

It is not as a rule necessary to administer an anæsthetic for the examination, though it may be advisable in cases where there is marked tenderness of the abdomen, or where the child resents the examination unduly. The examination is, as a rule, best made with the child lying upon its back on a couch with the thighs well flexed upon the abdomen. The first finger of the right hand is then used for the rectal examination, and the left hand is kept upon the child's abdomen. In this way the front and right sides of the abdomen can be examined, and to examine the left side the child can be simply rolled over on to the right side; this will enable the left side of the pelvis and abdominal cavity to be explored without taking the finger out of the rectum, or if it be preferred the left forefinger may be used for examining the left side, and the patient kept in the dorsal position. In some cases additional information may be obtained by having the child held up in a

* 'Pediatrics,' vol. i, pp. 491-500, "On the Value of Rectal Exploration as an Aid to Diagnosis in Diseases of Children."

crouching attitude, so as to allow the force of gravity to bring into contact with the finger any tumour or diseased organ previously out of reach.

Children do not as a rule object much to a rectal exploration if gently and carefully carried out, though if any inflammatory condition is present it is better to administer an anæsthetic, as unless the child keeps still it is not possible to make a proper examination.

It should always be the rule to examine the rectum when a child is suffering from diarrhœa and tenesmus which does not readily react to treatment. Such cases are not infrequently seen, where the symptoms are the result of polypi, or adenomata in the rectum, and frequently it is only after a prolonged course of medicinal and dietetic treatment and possibly after a prolapse of the rectal wall has developed that the true cause is discovered, whereas a rectal examination at the commencement would have enabled a cure to be speedily effected. It must also not be forgotten that cases of chronic constipation in children may be the result of obstruction of the bowel caused by tumours such as sarcomata or the congenital sacral tumours, the presence of which can only be detected by such an examination.

Dr. George Carpenter in his original paper drew special attention to the valuable aid afforded by rectal examination in the diagnosis of tuberculous peritonitis. The characteristic matting together of the intestines, the thickened œdematous condition of the walls of the intestine, the presence of enlarged mesenteric glands and of localised collections of pus may be detected in this way, and form not only a valuable aid in the recognition of this condition, but in gauging the progress and severity of the disease.

Perhaps the greatest interest attaching to the rectal bimanual method of examination is in connection with diseases of the female pelvic organs of infants and young children.

It is only recently that we have recognised the possibility of children of tender years suffering from diseases of the uterine appendages.

A number of cases, however, are now on record. In his paper Dr. Carpenter mentions no less than thirty-five cases in which ovariectomy was performed upon children under 12 years of age, the youngest of which was a case of Roemer's, the child being aged 21 months. An ovarian cyst was removed and the child recovered.

The majority of the cases of ovarian cysts in children are dermoids of the ovary or broad ligament, while a certain proportion are cystic ovaries similar to the condition found in adult women.

An interesting case of ovarian cyst in a child, aged 22 months, is mentioned in the 'Reports of The Society for the Study of Disease in Children,' Vol. III, p. 91, by Dr. George Carpenter. The cyst was diagnosed by him by means of a rectal bimanual examination, and it was subsequently removed successfully by operation together with the tube and broad ligament on that side.

Quite a number of cases of inflammatory disorders of the tubes and ovaries in young children are on record. A certain number of these are tuberculous, but the majority are gonorrhœal and are similar to a like condition in adults. A gonorrhœal vulvitis is present in most of the cases, and infection of the tubes has occurred backwards along the genital tract. The condition found may be either that of pyosalpinx or a perimetritis or, as it should rather be called, pelvic cellulitis.

Two more cases of pyosalpinx have recently been recorded, both of which are of considerable interest. They will be found elsewhere in this JOURNAL. In one of them, which is recorded by Dr. George Carpenter, the child was aged $3\frac{1}{2}$ years, and a rectal examination revealed the fact that there was apparently acute salpingitis on both sides secondary to a gonorrhœal vulvitis. This case recovered without operation. In the other, which is reported by Mr. Leonard Bidwell, the child was aged 6 years, and a double salpingitis developed secondary to a gonorrhœal vulvitis and almost proved fatal; the condition was diagnosed by rectal examination, and Mr. Bidwell removed both tubes and subsequently curetted the uterus. The child made a perfect recovery.

Tuberculous disease of the uterine appendages is very rare in children, but there are several cases on record where this condition has been diagnosed by a rectal examination. Most of the cases which have been reported up to the present will be found referred to in a paper entitled "Tuberculosis of the Female Genitalia," by H. Macnaughton Jones, which appeared in the 'Edinburgh Medical Journal' for August, 1904. The credit for first drawing attention to these conditions of the uterine appendages in young children, and of the importance of making "a rectal examination" a routine practice in all doubtful cases of tumours or inflammatory swellings in the pelvis and lower abdomen is certainly due to Dr. George Carpenter, and it seems probable now that attention has been drawn to the occurrence of these conditions in children and to the method of detecting them that we shall hear of numerous cases of a similar nature.

Editorial.

GONOCOCCAL INFECTIONS IN CHILDHOOD.

GONORRHOEA and its complications in the male have long been well known, but prior to the extensive researches of Mr. Bland-Sutton into the diseases of the Fallopian tubes, its vast importance in producing menstrual disturbances, relapsing peritonitis, and sterility, with constant pain and fever, and its consequent importance in pelvic surgery, was not contemplated. By the indisputable evidence that many women lose their lives annually from complications of gonorrhœa, and thousands lose their health or become sterile from the same cause, the alarming results of this disease is shown to us.

The further, but important, bearing upon certain affections in infancy and childhood is the question in which we desire to arouse the interest of the profession.

Of the part which gonorrhœa may play in the *rôle* of antenatal pathology we think that too little evidence is at present forthcoming; we cannot, therefore, enter upon the discussion of the maladies which originate during intra-uterine life, but it would seem that the infection theory of origin of Baginsky occupies the most important place, and that the toxins of the gonococcus demand consideration.

The relation of ophthalmia neonatorum to gonorrhœa in the mother as the source of infection has been rendered definite since the pathology of gonorrhœa, which once excited great argumentative strife, has been satisfactorily settled; the association of a purulent vaginal discharge in the mother, and snuffles, accompanied by a purulent nasal discharge, in her infant, appears to have escaped the notice of most medical men, whereas a mild omphalitis and its associated septic condition has never, as far as we know, been attributed to the gonococcus.

We desire to lay the greatest emphasis upon the following point: "that in the future medical men should make themselves more certain of what is really gonorrhœa in the infant." It is to Mr. Clement Lucas that the medical profession of this country owe much for his valuable contribution, "Gonococcus Joint Disease in Infants Secondary to Purulent Ophthalmia."

The gonococcus is known in the adult to attack serous membranes and fibrous tissue, synovial sacs, bursæ, tendon sheaths, the pleuræ, and the pericardium; familiar instances of its complications are gonorrhœal rheumatism and ulcerative endocarditis; so that we know the peculiar germ of gonorrhœa may reach near or distant parts of the body through the lymph-channels and blood-stream, penetrating the tissues and producing its many lesions.

The intra-pelvic lesions produced in the woman by gonorrhœa are as frequently due to a passage of the germ *viâ* the submucous and other lymphatic channels as to an extension along the mucosa; consequently such lesions may occur at a very early age of childhood, as in the cases quoted by Mr. Leonard Bidwell and Dr. George Carpenter.

Many have held that there is no relationship between an arthritis and gonorrhœa, that in the genesis of gonorrhœal rheumatism the gonorrhœa furnishes the preparatory elements and the rheumatic diathesis is the occasional or the explosive factor, but the presence of the gonococcus in these articular and periarticular lesions has settled the question.

Mr. Clement Lucas considered "that the ophthalmial rheumatism of infants may attack the joint in two distinct forms, viz.: (1) As a very acute arthritis accompanied with much swelling, tenderness, and redness, strongly suggesting a tendency to suppuration. (2) As a subacute synovitis giving rise to a good deal of effusion and pain on movement, but to little or no surface redness."

It is well for us in this connection to consider how slight are the primary osseous and cartilaginous changes in the poly-articular variety of (rheumatoid) arthritis as seen in infants, in children, and in young women, whereas the infiltrated ligamentous, synovial, tendinous, and peritendinous structures present clinical features similar and suggest an origin allied to those of so-called gonorrhœal rheumatism.

It would be hard to find a subject upon which there is so little definite knowledge, and so much diversity of opinion as the subject we are here bringing forward.

It is a sad fate to contemplate that thousands of innocent children are annually declared by our ophthalmological writers to have lost their sight from gonorrhœal infection; there is little doubt but that

in many cases the use of strong chemicals have had marked deleterious results; in the treatment of ophthalmia neonatorum, as in all other suppurative processes, "quantity and not quality" should be the foremost principle in irrigation.

The watchword of the medicine of the present day is "Prevention," but prevention to be thoroughly effectual must be in this relation antenatal. Gonorrhœa has not been sufficiently viewed as a fatal disease in infancy and childhood, yet many children die from acute septic conditions of which no other point of inception of disease can be suspected than the umbilicus.

Many infants at the breast die annually from intoxications, which occasionally manifest themselves by cutaneous eruptions, mimicking the better known exanthemata and often attributed to such. In the majority of cases the mother's milk is found teeming with a multitude of micro-organisms; and the primary focus can only be surmised as the purulent vaginal discharge which persists long after the normal duration of the lochial flow. In a few of these mothers a mammary abscess is found; but the micro-organisms which form such a localised abscess are the less virulent and oftentimes the child can be weaned in good time.

Science has long taught us that the toxic products of bacteria apart from the micro-organisms can produce alarming effects even when not elaborated in the body of the individual who suffers; from this we deduce that the milk of many a mother is responsible for the weakly condition of her infant, and its subsequent "exitus letalis" may not illogically be attributed to the gonococcus. The causation of purulent vaginal discharges in children of 2 years and upwards is much less frequently due to defilement by a male of adult life—labouring under the opinion that by such a transference of his malady he may be rid himself—than is the impression among medical men.

Far more often is the cause to be sought in one of the following explanations. The female child sleeping with both or either parent may from contact with the dirty night-dress of her parent or the contaminated bed-clothes become infected; or the child in using the water closet or urinary utensil may from the infected edges of the same contract the disease. This mode of origin has oftentimes been

ridiculed; but in a poverty-stricken home where gonorrhœa works its ravages there are few of the bedclothes, underlinen, and cloths from which at some time or other the gonococcus may not be cultivated. The limited period of life of this diplococcus when exposed to dryness is an undoubted explanation why gonorrhœa from contaminated articles of clothing, etc., is not more common. Again, we have to consider how the child may sit about upon a doorstep or a dirty rug or stool previously contaminated by a filthy and oftentimes drunken parent; the use of a common towel, the appropriation by a girl at her primary menstruation of a diaper previously employed by her sister, mother, or aunt are well-authenticated instances of this mode of communicating the disease.

When we discuss this important question in its relation to the diminution in birth-rate, in its bearing upon the increase in infant mortality; when we bear in mind the many cases of blindness due to ophthalmia neonatorum; when we are brought face to face with many cases of septic intoxication in infants; and, later, when we see the manifold aspects of certain puerile lesions, we are led to consider that the amount of suffering and sorrow which result at all ages from gonorrhœa will demand certain legislation on behalf of the innocent prior to marriage, and to avoid the communication of such disease to their offspring.

Excerpta Puerilia.

Municipal milk shops.—In spite of the discouraging experience which has fallen on the Battersea Borough Council by reason of the public auditor having disallowed the expenditure incurred in the establishment of a milk depôt, the Borough Council of Lambeth are about to venture on a similar experiment and follow in the footsteps of St. Helen's, Leigh, Liverpool, and Ashton-under-Lyne. Premises have been secured in York Road, Lambeth, and the venture has been promised support by St. Thomas's Hospital, the Lying-in Hospital, and the Royal Hospital for Women and Children. It is anticipated that the depôt will be in working order in March next. The Medical Officer of Health stated that 600 infantile deaths

occurred annually in Lambeth which could be prevented by the establishment of a milk depôt and by the education of mothers in the way of feeding infants. The scheme of the depôt will be at first to collect milk from approved sources, to sterilize it, to reduce it in strength according to the age of the infant for which it is intended and then to distribute it in properly sealed bottles. Ultimately it is possible that the municipality will venture upon the establishment of its own farm.

The scheme is an admirable one and the portion of the programme that appeals to us the most is the Council's intention "to collect milk from approved sources." This is the most important factor in the complicated problem of substitute infant-feeding. In former numbers of the JOURNAL we narrated our own disgusting experiences when inspecting the sources of milk supply of so-called high-class dairies. Dr. Thomas recently drew attention to the dirt which "unfortunately seems associated with many of the smaller dairies and cow-sheds in the district of Stepney." His experience is that "the dirtiest man on the milkman's premises is the one responsible for milking the cows." Frequently when visiting cow-sheds in the district it would, he says, be mere guesswork to give an idea when the milkers' hands were last washed and as a result particles of refuse, hay, straw, and insects are often seen when the milk is poured from the sample bottles. Dr. Thomas's experiences are by no means singular and they are those of all medical officers of health who attend to their duties. It is owing to the present indefensible methods of collecting and distributing infants' food that the mortality rate is so high, especially in the hot summer weather. That is why Liverpool has recently experienced such a terrible death-rate—37·9 per 1000 as against 19·8, the average of last year, which was a very cold and wet summer. Of 528 deaths which occurred there in one week more than half of them were children, the causes of death according to Dr. Hope, the medical officer of health, being the hot weather, the consumption of unsound fruit and fish, and general improper feeding. This mortality has arisen in spite of the milk depôts, from which, judging by their past results, so much was anticipated by their founders. Milk depôts under the present lax system of milk collection must fail in the hot summer months. Sterilizing a poisonous product in no way lessens its harmfulness, and the milk on its arrival at the depôts contains a sufficient amount of toxin to account for the lives of any number of infants. Sterilized milk in any case we do not regard with favour as an infant food. We deem it nearly as detrimental to the nursling as that which con-

tains chemical preservatives added by the unscrupulous dealer. What is wanted is a clean, undoctored milk with a minimum of germs in it when it reaches the infant, and we hope that the municipal milk depôts will not lose sight of this, a most important point for young and old alike. There is, unfortunately, not that disposition there ought to be among dairymen to seriously apply themselves to the production of a pure milk for the public use. The other day we attended, at Folkestone, a Public Health Congress, and we were unfavourably impressed by the address of the noble President when he touched upon the most important public health question of the hour—the milk supply. He was, so he told us, a large dairy-farmer, and we anticipated that we were about to listen to a carefully thought out exposition of modern policy in regard to this nobleman's dairies. We were greatly disappointed, however. He enunciated a *non possumus* policy, and our interest in him and his out-of-date utterances ceased from that moment. His attitude is that of thousands of others engaged in the same trade. Pressure must be brought to bear on these people. Power will have to be sought by the Public Health Authorities to compel those engaged in the milk trade—viz. the dairy-farmers, the milk corporations, the railway companies, and the milk shops—to comply with modern requirements. It is their manifest duty to do so, not solely in the interests of the infantile population, but also in that of the people. The interests of this far larger population are not directly provided for by the erection of milk depôts, and disease and death from drinking contaminated milk fall heavily upon this section of the public, though they do not suffer to a proportionate extent.

Voters should take care that those who are desirous of representing their interests in municipal affairs are strong advocates of a pure milk supply, and of the adoption of coercive measures to obtain it.

Juvenile smoking.—The Physical Deterioration Committee have made two important recommendations on this subject, (1) that Parliament should prohibit the sale of tobacco and cigarettes to children below a certain age, and (2) that Parliament should also prohibit the sale of tobacco and cigarettes in sweet-shops and other shops frequented by children.

It is anticipated that there will be little difficulty in passing a Bill that will embody these recommendations.

A Bill, which has been well backed, especially by the Service members, has already been introduced into Parliament by Mr. Rigg,

M.P. It has been promoted by the British Anti-Tobacco and Anti-Narcotic League which has its headquarters in Manchester. It is intended to penalize the sale of tobacco to a child. A youth under 16 years who is found smoking will be fined for each offence, the fine to be recoverable from the parents. This Bill will be printed and circulated, and re-introduced next year. The interval will enable the public to thoroughly thrash out the question and Parliament to become acquainted with its provisions. It is time restrictive measures were adopted. The baneful effects of the habit on the young and the restrictive measures adopted years ago in foreign countries to stop the evil have already been described in our pages.

Recently a coroner's jury in Halifax (Yorks) found that a boy of 11 years had met his death from narcotic poisoning, and since then a boy of 13, living in Oakworth (Yorks), on whom an inquest was held, was found, on the medical evidence, to have suffered from chronic tobacco poisoning. The verdict was "Death from natural causes accelerated by tobacco-smoking."

Infantile mortality and the Public Health Authorities.—According to the Registrar-General's returns, issued recently, the Aberdare infantile mortality rate for the quarter ending March the 25th is the worst in the kingdom. The Aberdare District Council are well aware of this unenviable distinction. The medical officer of health by their request recently suggested remedies. The Council listened and took no action! In Aberdare and in South Wales towns the cause of this unnecessary waste of infant life is attributable to "ignorance and indifference." In many Lancashire towns the infantile mortality is also high, but there is supposed to be some excuse for it in these localities because the mothers have to work in the mills and factories and their infants are farmed out during their absence. The Bideford Urban District Council have also recently received a report from the medical officer of health on the same subject. The average infantile mortality rate for ten years was 131.5 per 1000, and for the year 1903 it was only (*sic*) 99.5. Bideford considered that it was entitled to wear a feather in its cap by reason of the fact that the average infantile mortality rate for North Devon urban districts for 1903 was 102.2. Bideford was eighth on the list of eleven urban districts of North Devon, three neighbouring urban districts having an infantile mortality rate of 134.6, 133.3, and 140.6. Thus these Urban districts of North Devon had an infantile mortality rate nearly as high as the metropolitan district of Camberwell, which boasted 143 per 1000.

The Bideford Urban District Council thought that the above lamentable state of affairs "was very satisfactory"—to the undertakers no doubt—"and compared favourably with that of the other urban districts of North Devon."

Take the urban district of Beckenham on the outskirts of London and in close touch with it. Its infantile mortality rate for 1903 was 96·9 per 1000 with a general death rate of 7·8 per 1000. Its average infantile mortality rate for the previous decade was 112.

Annually the medical officer of health draws public attention to this most unnecessary waste of infant life, but his warnings are disregarded. During the past ten years the average London infantile mortality rate per 1000 was 159, that of Bristol 146, Wolverhampton 192, Leicester 191, Nottingham 185, Birmingham 188, Manchester 191, Preston 235, and Burnley 211.

Wherever inquiries may be prosecuted throughout these islands the infantile mortality rate will be found to be very high, and, to put it plainly, infants are killed right and left. The causes for this high mortality rate, which is general to the country, though mostly observed amongst the poor, are numerous. The root of the evil is in the neglect of breast-feeding. As an illustration, out of 200 infantile deaths which occurred recently in Liverpool, only seventeen of them were suckled by their mothers. To encourage and popularise maternal nursing local funds should be started for the provision of pecuniary aids for the necessitous and prizes for the deserving.

The gratuitous distribution of food to nursing mothers who are in need of such aid must not be omitted. How often in an outpatient hospital practice one finds a poor anæmic creature trying to nurse her babe and failing in the attempt from lack of nourishment!

Next in importance is the unwholesome state of the substitute for maternal nursing, viz. the cows' milk. The cows' milk is first contaminated in its passage over the dirty hands of the milkers, and it gains in filth by reason of the insanitary condition in which the milk cows are kept and the careless methods adopted by those who milk them. The dirty fluid increases in harmfulness in its dilatory passage to the milk shops owing to careless handling in transit and foul storage, until its belated arrival in the infant's feeding-bottles. The latter are mostly of a type which cannot be properly cleansed—the old-fashioned abominations with long rubber tubes. The Corporation of Birmingham, a city which unfortunately enjoys an unfavourable record in regard to infantile mortality, are now supplying suitable feeding-bottles gratuitously to special cases, a

well-timed municipal recognition of one of the evils which threatens the life of the nursing.

There is no excuse for unwholesome cows' milk. The existing laws that control cow-keepers, dairies, and milk shops require considerable strengthening; inspectors must be stricter and more thorough in their inspections. The infantile mortality rate will not be materially reduced until that be accomplished. Public health authorities throughout the kingdom must make the collection and distribution of cows' milk a special study, and must petition Parliament for increased powers over all those persons who are engaged in the milk traffic in accordance with modern medical views.

At the present time, it is doubtful whether the poor are sufficiently educated to understand the importance of conserving this perishable commodity, or to be made aware of its very poisonous nature when contaminated and decomposing. Their homes and their habits of life are quite foreign to the recognition of the extreme care that should be exercised in the feeding of infants. Health lectures in the poorer districts of certain towns have been tried and found wanting—they are ill attended and they do not make any headway against the evil. Lectures are sufficiently trying at times for trained intellects, but the effect of the quasi-scientific discourse of an hour's duration on the untutored mind must be the production of an indescribable boredom and a strong determination on the part of the sufferer to keep away for the future. Lectures are far beyond the mental capacity of such people. The people cannot be reached in that way. Printed instructions on infantile feeding and management have been distributed for years at the children's hospitals and, considered broadly, are of doubtful service. To these people the all-important part of the consultation is the bottle of medicine—they take the leaflet as they would the paper in which they purchase their tea. Public health authorities need not anticipate great results from the use of printed matter. They must go to the people; the people will not come to them. Domiciliary visits amongst those who have the care of young children by trained inspectors are necessary. In Birmingham thirteen lady health inspectors are employed. Female inspectors should be chosen who have received a thorough training in the wards of a children's hospital. In addition to children's hospital training they should be required to have a sound practical knowledge of elementary hygiene, simple cooking, and household management. We look upon a knowledge of cooking and household management as most important. We have known many trained nurses who could not cook a potato in theory

or practice, and we have had experience of those whose knowledge of household management was confined to knocking nails on the outside of a wardrobe to increase the hanging accommodation, and the placing of soot-begrimed kettles direct from the fire on to valuable carpets ! Such people, however high their medical and surgical nursing training, would be worse than useless for such appointments. It would be the business of such female inspectors, who should be under the direction of the medical officer of health, to see that the infants in their district were reared in accordance with the medical directions, and in the event of want of success from the adoption of routine methods to send the patients to the nearest hospital for skilled advice, which, when obtained, it would be their duty to see carried out. Weekly weighings of the infants and the keeping of records of these would be a part of their duties, and in the event of gross parental neglect magisterial proceedings could and should be taken. During these visits the giving of *practical* demonstrations of domestic hygiene would tend in the course of time to materially improve the lives and dwellings of the poor and the national physique of the future.

Many mothers are compelled to gain a livelihood in workshops and factories and leave their offspring in the care of strangers. The people who make it their business to take charge of these children, "the minding shops" as they are termed, are often aged people dwelling in filth and destitution with the curse of alcohol eating into their lives and an absence of fresh air in their surroundings. Attentiveness and cleanliness cannot be hoped for from such custodians, nor are they rendered. For these children municipal crèches, or day nurseries for infants and young children, should be provided where there exists a necessity for them, such as in the towns and districts where female labour is largely employed. The Acton Urban District Council recently applied to Parliament for power to maintain one or more crèches, but the application was refused on the ground that it was a novel proposition from a legislative point of view.

The crèche insures cleanliness, clean clothing, wholesome food, regular feeding, and it affords an object-lesson to mothers of the great value of domestic hygiene.

The various indigestible comestibles that are thrust into the mouths of infants by stupid and ignorant people are not conducive to infantile health, and such articles as carrots, gin, bacon, beer, onions, cheese, tea, cakes, and meat are not beneficial to nurslings, but they get them all the same. A French law forbids

anyone, under the threat of heavy penalties, to give infants under one year of age any form of solid food unless ordered in writing to do so by a qualified doctor. Some such law in this country would prove of great service, and would restrain the ravages now made in the infantile ranks by the various proprietary foods.

Another factor in infantile mortality is not infrequently the extreme poverty of the parents; the expenditure for milk in some instances is not more than one penny a day, and we have known it to be as low as half that amount. An infant, of course, cannot thrive on such a meagre allowance, and properly administered OUTDOOR relief should in such cases be given to the mother, and should carry with it the knowledge that the doctor can be consulted should the child fall ill.

Finally, there is the important question of the halfpenny a week insurance policies on infant lives. This practice of infantile insurance constitutes a menace to the lives of these poor infants, which in some instances must prove a strong temptation to their guardians to make away with them by a very simple means, viz. by a process which insures killing without committing legal murder, and that is by withholding from them the necessary care and attention practised for a prolonged period of time.

An enumeration of the vital questions which determine the excessive infantile mortality rate has been made, and the methods which should be adopted to reduce that mortality have been dwelt upon at some length, and it is hoped that all public health authorities will seriously take in hand this important question and consider the means that should be adopted to restrict the present useless expenditure of infant lives. Any scheme that is devised must be a comprehensive one, and must embrace all the points that we have dwelt upon. When that is accomplished the infantile mortality rate will fall rapidly.

Abstracts from Current Literature.

Medicine.

Gonorrhœal urethritis in young boys ('*Thèse de Paris*, 1904; '*Rev. Mens. des Mal. de l'Enf.*,' August, 1904, vol. XXII, p. 376).—Genevoix treats fully of this condition. Gonorrhœa is by far the commonest source of urethritis in boys, and is by no means a rare condition. Although

several cases have been published in children under two years old, even as early as fifteen months, yet the ages of election are between three and four, and again between nine and twelve. Direct infection is the explanation of this—passively acquired in children of the former age; actively contracted in many cases of the second age. There are also cases where the infection is not of venereal origin, having reached the glans indirectly, through, for instance, sleeping with an infected person. The character of the symptoms does not differ from that shown by adults, but the frequency of some of the complications does. Edema of the prepuce is extremely frequent and often leads to phimosis; lymphangitis of the penis and inguinal adenitis are also common. The posterior urethra is very often affected, and cystitis is a common sequence. Epididymitis is rare, though several cases are reported, one being in an infant of fifteen months (Rona). Stricture of the urethra has been recorded many times. Kammer had a boy of two and a half, who had three impassable strictures six months after a urethritis. Ultimately two of these were divided internally and one externally with a good result. Cases also occur of stricture in adults which have been traced to infantile urethritis. There is only one case of rheumatism of urethral origin on record (Vanuxhem). Purulent ophthalmia is sometimes a complication.

The course of the illness is variable, usually lasting a couple of months. Moncorvo records a case in which it lasted two years. As regards the diagnosis, the only difficulty lies in excluding a septic balano-posthitis in which it is not easy to ascertain the origin of the pus. The urethral orifice should then be carefully inspected after hot baths, etc., have reduced the external inflammation; the discharge from this latter cause should subside altogether after a couple of day's appropriate treatment.

A. ERNEST JONES.

Gonorrhœal peritonitis secondary to vulvitis (*Gazette des Hôpitaux, March the 8th, 1904, p. 261*).—**Sebilleau** describes the cases of two sisters who had recovered from this affection. The elder, aged twelve, had had vulvitis badly for a month. She had been a fortnight under treatment, and was recovering. She was suddenly seized with acute abdominal pain, and when seen next day presented all the local and general signs of acute peritonitis. The younger, aged six and a half, contracted vulvitis a week later, and was seized with peritonitis a week earlier than her sister. Neisser's gonococcus was isolated from the vulval discharge in either case. Both cases made a good recovery in about a week.

The author advises against too readily opening the abdomen unnecessarily in these cases, as has been done on more than one occasion. They usually run a rapid but very benign course, although fatal cases have been recorded. The mode of infection of the peritoneum is discussed.

A. ERNEST JONES.

Gonococcal peritonitis in children (*Archiv. di patol. e clin. infant.*, 1903, p. 73).—**P. Galvagno** describes three cases in which the peritonitis was traced to a previously existing vulvo-vaginitis of gonorrhœal origin, as proved by the presence of Neisser's bacillus. There was pain on palpating the abdomen, enlargement to about 3 cm. above the costal arch, dulness in the hypogastrium, and slight fluctuation. Treatment consisted in rest, emollient poultices, laxatives, and iodide of potassium, the vulvo-vaginitis being treated by ablutions of permanganate of potash alternating with solution of protargol.

VINCENT DICKINSON.

Gonorrhœa in infants, with a report of eight cases of pyæmia (*New York Medical Record*, November 14th, 1903).—**Kimball** records eight cases of gonorrhœal pyæmia, with arthritis and abscesses in infants: in none, in spite of careful investigation, was the channel of infection discovered. The organism showed the typical appearances of the gonococcus in culture, in its reaction to Gram's staining method, and in its intra-cellular situation. The seven girls and one boy were all under three months old. In six cases purulent arthritis and peri-arthritis of numerous joints and myositis were present: in two cases the knee was alone affected; the joints of the foot and hand were most frequently involved, in two cases the temporo-mandibular joint, and in three the toes and fingers; in one case there was purulent exudation in eleven joints. The treatment consisted in arthrotomy or aspiration. The joint affections usually appeared consecutively, and in some cases, that first affected had recovered before the appearance of the later lesions. In none of these cases was any trace of urethritis, vaginitis, or conjunctivitis discovered; in one case only a gonorrhœal ophthalmia appeared, but after the occurrence of joint lesions. Six cases ended fatally, four during the acute stage and two later from exhaustion. In one case a stomatitis may have been the original point of entry of the infection, but this was not certain: the respiratory system was unaffected in all.

KEITH MONSARRAT (Liverpool).

Two cases of gonorrhœal peritonitis, secondary to vulvo-vaginitis (*Arch. of Pediatrics*, 1903, No. 12, p. 910).—**W. Northrup** reports this condition in two sisters, one aged 11 years and the other 9 years, who slept together. They both had a vaginal discharge, in which the presence of the gonococcus was demonstrated. The elder was seized, after some days of malaise, with severe pains, chiefly in the right iliac fossa, vomiting and prostration. A surgeon who was called in diagnosed perforative appendicitis, but at the operation only serous fluid was found, whilst the appendix was healthy and the peritoneum inflamed, especially in the cæcal region. The younger child, who, fortunately for her, did not present similar symptoms till a week later, recovered without operation.

A. ERNEST JONES.

Gonorrhœa in children (*Amer. Med.*, February 21, 1903).—**Lowen-burg** reports the case of a four-year-old child who became infected with the gonococcus from handling old rags and clothes. He concludes as follows: (1) All urethral discharges in young children should be viewed with suspicion. (2) Such discharges should be examined microscopically. (3) Should the gonococcus be found the possibility of the case assuming a medico-legal nature should be remembered. (4) The question of rape should be carefully eliminated or conclusively proved. (5) Local cleanliness, urinary antiseptics, and alkalis are recommended. (6) Gonorrhœa does not contra-indicate circumcision. (7) Vulvo-vaginitis in little girls is often gonorrhœal.

J. W. THOMSON WALKER.

Gonorrhœal exanthemata in new-born children (*Monch. med. Wochenschr.*, 1901, No. 25).—**Paulsen** from a series of observations concludes that gonorrhœal exanthemata in new-born children occur more frequently than is usually accepted. The rash consists of papules and bullæ, the only characteristic of which is the presence in them of gonococci. The rash occurs as a secondary infection in gonorrhœa, but it may be a primary

infection, apparently *intra partum*. Recovery is usually spontaneous, without permanent injury to the children, but it may lead to formation of boils.

J. W. THOMSON WALKER.

Gonorrhœal urethritis in boys under puberty (*Münch. med. Wochenschr.*, 1902, No. 46).—**Fischer** collected sixty-nine cases of gonorrhœa in boys under puberty. Gonorrhœa in children was particularly acute in its onset, but after that pursued a course similar to that in the adult. The method of infection was certain in only forty of these cases. Of these only 2 could be referred to immoral practices, 12 were due to attempts at coitus, and 26 were accidental infections through clothes, etc.

J. W. THOMSON WALKER.

Peritonitis as a complication of vulvo-vaginitis in female children (*Archiv de Méd. des Enfants*, September, 1901, 513).—**J. Comby**. The peritoneum is attacked in many different ways as a complication of vulvo-vaginitis in small children, although the complication is comparatively rare. Of the numerous cases of gonococcal peritonitis following vulvo-vaginitis, isolated cases end fatally but the greater number recover. The author relates eight cases which he personally observed. One of these was a slight case, the others were severe, but all recovered. Although gonococci were not proved in all cases, the author believes that the connection between the vaginitis and peritonitis was sufficient clinical proof. The age of the children varied from 4 to 13 years. The peritonitis occurred as a complication, sometimes of a long-standing, sometimes of a recent, infection. The sources of infection were unknown. In the vulvo-vaginal pus the gonococci were sometimes recognised, but not in all cases. According to the author only gonorrhœal vulvo-vaginitis leads to peritonitis, and not that caused by other organisms. In the rare autopsies on such cases marked inflammation of the omentum was found, thickened peritoneum, sero-purulent or purulent exudation in the pelvis or in the peritoneal pouches. The inflammatory changes are specially marked in the neighbourhood of the genital organs. In favourable cases, those which recover in 24 to 36 hours, there is only inflammatory irritation and not a real peritonitis. In the others all stages between this and purulent, circumscribed, and general peritonitis are found. The symptoms begin very suddenly and unexpectedly, the discharge at the time being often very slight and inflammatory irritation absent. Sudden onset of pain and vomiting usher in the attack. There is tenderness of the whole abdomen, which may be slight and passing or severe and continuous. Abdominal distension and tympanites with constipation are frequently present, but diarrhœa is present in some cases. There is fever from the first, and the pulse is small and rapid and the breathing shallow, but hiccup and fœcal vomiting never occur. The extremities are cold and cyanotic in spite of the fever. In some cases the facies abdominalis is present. In ephemeral cases the symptoms disappear in 24 to 48 hours, in cases of medium duration in 4 to 5 days, and in the more severe cases in 7 to 8 days. In one case the child had two attacks with an interval of 5 weeks, but such recurrences are exceptional. The prognosis is good. Diagnosis must turn upon the sudden occurrence of peritonitis in a young child which is suffering from vulvo-vaginitis. Bacteriology is only of moderate importance. The treatment is that of peritonitis from other causes. The vaginal discharge should only be treated after the symptoms of peritonitis have abated.

J. W. THOMSON WALKER.

Case of cerebro-spinal form of congenital syphilis ('*Nouvelle Iconographie de la Salpêtrière*,' No. 2, 1903).—**Richon** describes a boy of eleven, family history not known, who was well until a traumatism set up suppuration of the right parietal region with a sinus. He was trephined for right-sided Jacksonian fits without avail. He suffered considerable mental deterioration, and died of tuberculosis three years later. At the autopsy scattered and diffuse meningo-encephalitis was found in the brain and spinal cord, and microscopically proved to be of specific origin.

A. ERNEST JONES.

Hystero-epilepsy reproduced by somnoform ('*Journal de Médecine de Bordeaux*,' July 10, p. 509).—**M. Rolland** describes paroxysmal nervous crises in an infant; the cries resembled those heard in meningitis. The illness lasted four months, when improvement began and was complete in a year. M. Rolland saw the condition return under the influence of somnoform given to reduce a dislocation of the shoulder.

T. P. BEDDOES.

Chorea and anæmia ('*Canadian Journal of Medicine and Surgery*,' August, 1904, p. 64.).—**Roshier W. Miller**, the author of this paper, is of the opinion that anæmia as a cause of chorea is worthy of consideration, and quotes three cases in which anæmia of a simple type was a marked feature. In the first two cases the choreic movements and the anæmia appeared several months after an attack of enteric fever in one child and malaria in the other. The third case was of a severe type of chorea and treatment was hampered by the presence of great gastric irritability. All these cases, with appropriate feeding and improvement in the anæmic state, made a rapid recovery.

SYDNEY W. CURL.

Pseudo-meningitis in the course of chorea ('*Lyon Médical*,' January 25, 1903; '*Arch. de Neurologie*,' July, 1904, p. 58).—**Barjon** describes the case of a girl who, at the age of eight and a half, and again at the age of seventeen, showed grave cerebral symptoms which led to the diagnosis of meningitis. She had Sydenham's chorea, and also hysteria. On the third day her aspect was that of a tuberculous meningitis case in its third week, which in itself led to a doubt in the diagnosis. Recovery was just as rapid, and was complete.

A. ERNEST JONES.

Urinary incontinence in myelitis ('*Arch. de Neurologie*,' April, 1904, p. 327).—**Weil** reports the case of a girl aged 14 who had a dorso-lumbar myelitis with flaccid paraplegia. She appeared to have a paralytic incontinence, as the urine dribbled away drop by drop. Systematic catheterisation showed that this was really due to an overflow retention, and it cured the condition. As time went on the procedure had to be repeated at increasingly short intervals, as the bladder held less and less urine. Post mortem it was found to be the size of a small orange, very contracted, and having thick walls. This progressive retraction of the bladder the author attributes to separation from nervous control, contravening the usually accepted theory. He considers that the condition of contracted bladder is common in such cases, and that if it were recognised and treated great prolongation of life would be the result.

A. ERNEST JONES.

Cataleptoid state due to cortical insufficiency ('*Riv. di Clin. Ped.*' May, 1904).—**G. Berti** describes the case of a female child, aged 9 years. Father healthy, mother and other maternal relatives dead of tuberculosis. The child, born at full term, forceps delivery, had suffered from measles, enterocolitis, and at 6 years of age, typhus, after which she remained puny, timid, and taciturn, forgetful, and somnolent. There was no alteration of thermic or tactile sense. Reflexes normal, complex movements executed slowly, no intentional tremor, no paresis, gait natural but slow, the same with eyes bandaged. Attitude erect and somewhat statuesque. When a limb was raised and placed in a given position, she held it in this position till tired (six minutes for an arm) or until told to move it. Psychical state noteworthy: she was indifferent to overtures of kindness, spoke little, sometimes muttered, did not recollect numbers or the names and attributes of objects, and had no notion of colour. Improvement, at first slow and then rapid, resulted in a permanent cure in about six weeks, the treatment being cacodylate of soda in 10-centigramme doses daily, by mouth. The most important conclusions arrived at were: the catalepsy was the last motor symptom of cortical hypo-function, referable to the typhus infection. Considering the rapid disappearance of cataleptoid symptoms and of the hypopsychia, a chemical rather than an anatomical theory would afford the best explanation, whether in respect to the pathogenesis of the symptomatic catalepsy in particular, or in respect to the pathogenesis in general of the nervous alteration consecutive to the toxic invasion.

VINCENT DICKINSON.

On the temperature of breast-fed infants during maternal menstruation ('*La Clinique Infantile*,' June 15, 1904).—**Weill**, of Lyons, while systematically taking the temperature of nursing infants, was struck by certain irregularities in the temperature charts. A healthy, full-time child suckled by a healthy nurse should keep a steady temperature, the morning and evening variations not amounting to more than two-tenths of a degree Centigrade. In certain infants a febrile condition arose where the only disturbing factor was the occurrence of menstruation in the wet nurses or nursing mothers. This has been found to occur in all cases, and to be without permanent injurious effect. Attention to this point may clear up cases of sudden illness amongst babies which otherwise might remain unexplained.

C. J. THOMAS.

Infantile tuberculosis, rheumatism, chronic polyarthritis and teno-synovitis, of bacterial origin, in a girl aged 10 years ('*Gaz. des Hôpitaux*,' 1904, p. 69).—Under this name **Morinquand** describes an affection of the joints and tendon-sheaths. He refers to a case by **Patel** and some remarks by **Barbier** as the only important publications on the subject. The patient's family and previous personal history were both good. Two years ago she developed hydrarthrosis of both tibio-tarsal articulations, with swelling of the tendon-sheaths on the dorsum of the foot and behind both malleoli. The wrist joints and the radial tendon-sheaths were similarly affected. All the swellings were painless, and there were no signs of inflammation. There was also some thickening of the sole of the foot below the instep. Multiple *spina ventrose* appeared on the phalanges. The movements of the wrists became gradually restricted, till in about two months complete ankylosis was produced. After some weeks the swelling of the wrists and ankles diminished, but the elbows and knees then became affected by a similar swelling, which soon reached considerable dimensions.

At this stage the patient was admitted into hospital. It was found that most of the epiphyses entering into the affected joints were enlarged. Voluntary movements were considerably, and passive movements slightly, impaired (both wrists, however, were ankylosed, as stated above). Grating was obtained in some of the joints, and also slight tenderness on deep pressure. A few small glands were felt in both axillæ, the neck, and the groins. The various deformities are described in detail. The patient had no cough, but the breathing at the left apex was very "blowing" in character. The heart was healthy. The treatment adopted was immobilisation of the joints, counter-irritation with tincture of iodine, and exposure to direct sunlight. The general and local conditions underwent considerable improvement. No bacteriological examination was made, but the author professes his conviction that the disease was due to the tubercle bacillus. S. H. BOWEN.

Scarlatiniform eruptions during diphtheria (*Riv. di Clin. Ped.*, May, 1904).—**C. Francioni** investigates the grounds for the divergence of opinions expressed by different authorities as to the origin of these eruptions, some attributing them to a complication of true scarlatina and others to the action of the antidiphtheritic serum. He refers to the observations of Lobligewis, viz., polymucleosis is more marked in scarlatina than in serum erythema; eosinophiles are rarer in scarlatina; in scarlatiniform erythema anomalous forms are met with which are absent in true scarlatina, all of which he considers based on insufficient data. He follows the methods of Hamburger, Moro, Pirquet and Schiek, founded on the presence of precipitine in the blood following the introduction of serum; and by examining the precipitating property of the blood serum in a given subject, he has been able to demonstrate absolutely how some scarlatiniform eruptions had nothing to do with the action of the antitoxic serum, but were due to another causal agent contemporaneous with the diphtheria. In all his cases the character of the eruption and the clinical signs had given rise to suspicion, such as a too early onset, the concomitance of special pharyngeal signs, the duration and extent of the eruption, the consecutive abundant desquamation, its simultaneous occurrence in many children, or the appearance of an early scarlatiniform eruption some time after an erythematous one had attracted attention. But the most absolute proof was afforded that in none of these cases was the eruption accompanied or followed by the appearance of precipitine in the blood. Whether the eruption in these cases was really due to true scarlatina is doubtful, but at all events it does not detract from the importance of being able to ascertain definitely the nature of an eruption, whether it is due to a contagious affection or not. VINCENT DICKINSON.

Diphtheria (*Amer. Pract. and News*, May, 1904, p. 262).—**F. W. Boggess**, in a short paper, discusses the differential diagnosis and the treatment of diphtheria. His words on the subject of treatment are worth quoting, as indicative of the value attached by physicians to antitoxin. "To-day a physician who hesitates one moment to use antitoxin is guilty of malpraxis; and a physician who could but would not use it in the beginning of a case, if the patient should die, is almost a criminal." No doubt the words are somewhat too strong and indicate too great a reliance on laboratory methods of diagnosis and treatment. Not only is the diagnosis often uncertain on clinical grounds, but also many cases are extremely mild. The necessity of antitoxin in the latter is not always apparent. Boggess supports his views by stating that there are "neither

real nor alleged dangers from the injection of antitoxin"! He recommends an initial dose of one to four thousand units of concentrated antitoxin for children under two years of age, and that it should be repeated every 12 to 24 hours if necessary. If given early and in these doses, intubation is almost never required. The signs of improvement are the fall of temperature within twenty-four hours; improvement in the pulse; the mind becomes clearer; the membrane does not spread, or it begins to exfoliate; and severe cases become mild. In addition to the antitoxin patients need complete rest; free supply of water, to flush out the kidneys; careful feeding, nasal and rectal in some instances; and stimulants. He considers that children with diphtheria can stand a large amount of alcohol, with apparent benefit, *e. g.* 4 to 8 ounces of whisky in twenty-four hours for a child aged two to three years. Of other stimulants he recommends chiefly strychnine, caffeine, and camphor subcutaneously. The local treatment should not be neglected, unless force is necessary to carry it out. For the nose, mouth, and pharynx he prefers methylene blue, one drachm to the ounce of water. If there is much nasal congestion or hæmorrhage, spraying with adrenalin chloride solution is useful. Patients should be kept in bed for at least a week after the throat symptoms have cleared up.

EDMUND CAUTLEY.

Nephritis in infantile scurvy ('*Lancet*, August 13, 1904, p. 441).—STILL quotes two cases as evidence that infantile scurvy may produce not only hæmaturia or albuminuria, but actual nephritis. The first case was that of a girl aged 11 months, who presented the typical signs of scurvy. The urine showed many blood-corpuscles, some leucocytes, a moderate cloud of albumin, but no casts. The child was put on antiscorbutic treatment, and ten days later the urine was found to contain only a few blood-corpuscles, but the amount of albumin had greatly increased, and numbers of hyaline and epithelial casts were present. The child continued to improve generally, but more than three weeks after the first examination the urine still showed a cloud of albumin, although the casts had disappeared, and sixteen months later albumin was still present. The second case was that of a boy aged 8 months who had scurvy in a more severe form. The urine contained albumin, a few red cells, and numbers of epithelial hyaline and granular casts. Suitable treatment was carried out, but five weeks after the first examination the urine still contained a trace of albumin, although the casts had disappeared. STILL considers that the possibility of the occurrence of nephritis should make a routine examination of the urine necessary in all cases of infantile scurvy.

SYDNEY W. CURL.

Barlow's disease ('*Congrès de Gynécologie, d'Obstétrique et de Pédiatrie, Rouen, April, 1904*).—E. AUSSET, of Lille, read a long communication dealing with the clinical aspect, the pathology, and treatment of this disease. On the clinical side he laid stress on the earlier symptoms of single hæmorrhages, as hæmaturia or orbital hæmorrhage, it being often possible to diagnose the condition before the classical features of anæmia, periosteal hæmatomata, and purpura are developed. In his cases, gastro-intestinal disturbances invariably preceded these symptoms. As regards the pathogeny, he concludes, after discussing the various hypotheses that have been held, that the disease is a hæmorrhagic septicæmia, an intestinal infection in which rickets plays an important predisposing cause. He attributes no importance to the dietetic factors as such. The source of the infection is in

the cows' milk, when the animals are fed on bad food, as distillers' waste, etc. Similarly in treatment, the only important thing is to in every way improve the hygiene, the air supply, the food, etc. He attaches but little value to such antiscorbutic remedies as lemon juice, meat juice, or potatoes. **Comby** cited the seven cases he showed recently (see *BRITISH JOURNAL OF CHILDREN'S DISEASES*, July), which had developed on sterilised milk, evidence in favour of Ausset's view that boiling bad milk did not remove the poisons.

A. ERNEST JONES.

Recurrent pneumonia ('*Rev. Mens. des Mal. de l'Enf.*' June, 1904, vol. XXII, p. 245).—**F. Valagussa**, of Rome, describes the case of an infant who between the ages of twelve months and twenty months passed through five attacks of lobar pneumonia, each attack being due to Fraenkel's diplococcus. The author considers fully the subject of latency of infection, and thinks it probable that the peribronchial glands are the seat of such infection, an attack of pneumonia occurring whenever the general health of the child was lowered. Each of these five attacks was immediately preceded by an acute enteritis. He thinks that Guaita's hypothesis of an enterogenous origin of bronchopneumonia is still more probable in the case of lobar pneumonia, seeing that Mya has shown that this latter condition differs from the former in being more easily set up by a hæmatogenous infection than a direct respiratory one.

A. ERNEST JONES.

Pathology.

Diphtheritic paralysis and ascending neuritis ('*Rev. Mens. des Malad. de l'Enf.*' April, 1904, vol. XXII, p. 145).—**L. Babonneix** publishes a valuable paper on this subject. He has been greatly struck by the connection between the seat of diphtherial lesion and the position of the paralysis, when this is localised, or the position of the initial paralysis, when this is generalised. After commenting on the usual palatal paralysis in throat lesions, he quotes interesting cases in which paralysis of either arm followed a cutaneous diphtheria of the same arm, and paralysis of the abdominal muscles followed umbilical diphtheria. There are ten cases on record where unilateral paralysis of the palate followed on diphtheria on the same side of the throat. The author made experiments on an extended scale in dogs and rabbits, which has in every way confirmed this general law. He describes in detail the microscopic lesions in the nervous system, having found both central and peripheral changes. Discussing which of these two is the primary lesion he decides that they are both due to an *ascending neuritis*, and confirms this hypothesis by the results of injection of toxin into the nerves themselves.

A. ERNEST JONES.

Diphtheria bacilli in impetigo and ecthyma ('*Rev. Mens. des Malad. de l'Enf.*' February, 1904, vol. XXII, p. 49).—**Raoul Labbé and Demarque** describe fully two cases of multiple impetiginous lesions in which they found Klebs-Loeffler bacilli. There was some reason for thinking that both cases had had pharyngeal diphtheria recently. A thorough search through the literature had revealed no similar case, streptococci being usually considered responsible for such lesions. The authors lay stress on the seriousness of the condition; one of their cases died. What led to a bacteriological examination was the chronic course run by the lesions, and they urge that such an examination should be more frequently undertaken. Their cases had no

connection with each other. The subject of cutaneous diphtheria in general is briefly dealt with, and specific treatment recommended.

A. ERNEST JONES.

Diphtheria bacilli in the common coryza of infants (*Jahrbuch f. Kinderheilkunde*, vol. VIII, p. 412).—L. Ballin examined the secretion of twenty children during an epidemic of infectious coryza in an asylum. In eleven of these diphtheria bacilli were found in the nasal mucus.

A. ERNEST JONES.

Embolism in diphtheria (*Congrès de Gynéc. d'Obstét. et de Pédiatrie, Rouen, April, 1904*).—Auché, of Bordeaux, related the case of a child, aged $4\frac{1}{2}$ years, who had extensive diphtherial lesions in the throat; tracheotomy was performed. On the ninth day palatal paralysis occurred, and embolic symptoms in the lower limbs. Death soon took place. Post mortem was found apical thrombosis in both ventricles, intense parenchymatous myocarditis, a gram-staining diplostreptococcus in the clot near the endocardium, and two clots, one in either external iliac artery. Auché says that this phenomenon is unique in diphtheria.

Marfan (*Société de Pédiatrie, May 10, 1904*) related the case of a child who developed the usual paralytic phenomena after diphtheria. On the next day there was severe abdominal pain, which was attributed to an abdominal embolism. This diagnosis was confirmed at the autopsy, thrombosis having occurred in the left ventricle, and a clot from here having plugged the abdominal aorta.

A. ERNEST JONES.

Heredity a factor in the ætiology of rickets (*Jahrb. f. Kinderheilk.*, 1903, vol. VIII, p. 129).—F. Seigert thinks that the importance of ætiology in this connection has been greatly overlooked. He has investigated a number of families, and concludes: the maternal influence in this respect is greater than the paternal; when there is a strong family history of rickets, the condition may develop in infants still at the breast, though not as a rule to so severe a degree as in bottle-fed infants; heredity plays a more important part than even the hygienic environment. A. ERNEST JONES.

The etiology of rickets (*Archiv. of Pediatrics, April, 1904, p. 250*).—Freeman takes the usual view that rickets is a general disease, without evident bone lesions in the early stages. He regards sweating on the forehead, a bald spot on the back of the head, and craniotabes as early symptoms. Climate and a deficient supply of oxygen are important factors. The disease is hardly known in hot climates, for both mothers and children live largely in the open air. On the other hand, rickets is very common in cold and temperate regions and in towns. He points out that against the theory of deficiency in lime salts is the fact that the proportion in cows' milk is much higher than in human milk. He does not, however, consider what may be the effect of heat on the salts in milk. The evidence in favour of the lactic acid theory is insufficient. Nor can the disease be safely ascribed to deficiency of fat. Herter could not produce rickets in pigs by feeding them on milk containing no fat. An intestinal toxæmia or microbial infection may be a cause. Such conditions are more prevalent in summer and in hot climates, whereas rickets is more common in cold climates and in winter. On the whole, experimental results have proved of little value. Zweifel has laid great stress on deficiency of hydrochloric acid in the gastric juice as a factor. Hence the value of giving common salt. Siegert (*Jahrbuch für Kind.*,

December, 1903, p. 929) is of opinion that heredity is one of the most important factors, and that the disease is transmitted through the mother, also that the next most important causes are diseases of the digestive and respiratory tracts. The most certain fact on which we can rely is that breast-feeding and a plentiful supply of fresh air and sunlight do not cause rickets.

EDMUND CAUTLEY.

The influence of intoxication by *B. coli* on the nerve ganglia of the heart, stomach, and intestines ('*La Pedr.*,' June, 1904).—A. Jovane has made some experiments with a view to show whether the *B. coli* exercises a malign influence on the nervous ganglia so as to account for the death of children affected with serious affections of the gastro-intestinal tract, by sudden failure of heart action, etc. Broth cultures were made of *B. coli* from the faeces of infants thus affected and injected into rabbits which were subsequently killed and the ganglia examined by Boccardi's modification of Nissl's method. Control experiments were made. The author arrived at the following conclusions: (1) Infection and intoxication by *B. coli* are capable of producing a more or less profound alteration in the intimate structure of the nerve ganglia of the heart and digestive tract; (2) chronic infections cause more serious alterations than acute infections; the former cause lesions that vary from a simple morphological modification of the nerve-cell by which it becomes globose or distorted, to total or partial chromatolysis, formation of vacuoles in the cytoplasm, which acquires a spongioid aspect, eccentric displacement of the nucleus, which cannot always be differentiated from the rest of the cell-body, tumefaction or disappearance of the nuclei and their substitution by highly-coloured granules, probably the result of the detritus of the chromatic cellular substances, and to shrinking and complete atrophy of the cell. In acute infections, on the other hand, the process rarely goes beyond a simple and more diffuse coloration of the cell, a slight change of form, and an eccentric displacement of the nucleus; (3) it is indisputable that all these infections, besides producing alterations in other systems and organs, make their malignant influence felt especially on the intimate ganglia of the heart and digestive tract; (4) impaired or altered function of the ganglia are the result of altered structure; (5) owing to the state of incomplete evolution of the nervous system of children, the alterations produced in them by these infections must be more grave than in the adult.

VINCENT DICKINSON.

Essential dropsy in infancy ('*Médecine Moderne*,' 1903, p. 336; '*Journ. de Méd. de Paris*,' 1904, vol. xvi, p. 36).—Fairbanks has observed twelve cases of this affection and collected from the literature 156 more, making a total of 168 cases, on which his paper is based. Essential dropsy is the name given to a general or localised oedema, occurring in the new-born, or in the first years of life, and unaccompanied by any organic disease of the heart or kidneys. It may also occur in older children. It may be preceded by special symptoms in previously healthy children, and may also be secondary in the sense of having been preceded by some other illness, the nature of which may vary widely. Fairbanks excludes, however, all those cases which occurred during, or immediately after, an infectious disease. All his cases were in children under 15 years; 83 per cent. were under 8 years. Boys are more often attacked than girls. The author thinks the season of the year may exert an

etiological influence by producing a low temperature or gastro-intestinal affections. The clinical features were varied; anaemia was found in 25 per cent.; gastro-intestinal troubles, usually diarrhoea, in 43 per cent. There was marked emaciation in 15 per cent., urticaria in 7 per cent., purpura in 4 per cent., and in 15 per cent. the temperature was subnormal. In some cases symptoms arose which suggested oedema of the larynx and pharynx; in two cases, symptoms which were attributed to meningitis may have been due to cerebral oedema; but there was no autopsy. The mortality diminished markedly with age. For cases under 2 years, the deaths were 34 per cent. For children over 2 years, the deaths were slightly over 4 per cent. The difference is due chiefly to feeble vitality at the earlier age. Moreover, it is in the two first years of life that we meet with such grave associated conditions as anaemia, marasmus, subnormal temperature, and, most important of all, gastro-intestinal disorders, which appear to have a true etiological influence. Fairbanks thinks that some of his cases of essential dropsy belong to the group which Quinke described under the name of angio-neurotic oedema. Strubing in 1885 described cases of a more serious nature, and accompanied by digestive troubles, vomiting, and general disturbance. Most authors who have observed such cases regard them as a vasomotor neurosis. The course of the disease is usually acute, but it may be subacute, or rarely even chronic. Of a similar nature, probably, are the cases of intermittent hydrarthrosis, with no disturbance of the general health, which have been described. In 1882 Quinke described six cases of ascites in girls of 11 to 13 years, with no general disturbance except, in two cases, transient fever, vomiting, and loss of appetite. In four cases the ascites disappeared rapidly with the onset of menstruation. In Otero's cases there was ascites, with oedema of the face, eyelids, feet, and hands. The children attacked ranged from $2\frac{1}{2}$ to 15 years, but the affection was also observed to a slighter degree in nurslings and adults. The malady was almost always preceded by prolonged diarrhoea. The urine was normal, all the organs were normal, and in the cases where an autopsy was obtained no organic affection was found with the exception of dilatation of the stomach. Ferron, writing in 1902, on acute oedema of the eyelids in young subjects, thinks this is of nervous origin, or possibly rheumatic or gouty. Oedema of the new-born appears usually in the first two or three days of life, or at any rate the first fortnight, in feeble and often premature children. It is rare, and is situated on the lower limbs and lower part of the body. Pernet attributes it to weakness of the right heart. It has been confounded with sclerema, but is easily distinguished from this by the softness and mobility of the skin. Cases of dropsy with no cardiac or renal affection supervening in infectious diseases are of particular interest, but renal lesions must be absolutely excluded. Senator thinks that in these cases the cutaneous vessels are attacked independently of those of the kidney. This dropsy may follow measles, varicella, or typhoid fever, but anaemia and exposure to cold are especially blamed. The last would act by paralysing the nerves of the spine. A toxic origin has also been assigned. Traumatism, certain drugs, intestinal parasites, and emotions are supposed to be causes. Fairbanks distinguishes direct and predisposing causes. He believes that most cases arise from reflex sympathetic disturbance acting on the vessel walls. As predisposing causes he mentions anaemia, marasmus, heredity, and a tendency to hypothermism. Among direct causes he quotes toxic and chemical agents, cold, traumatism, peripheral irritation, and emotions. Cutaneous affections he regards simply

as complications. Extreme nervous irritability is common in depressed states generally. The experience of Ranvier, Crastrounoff, and Gergueus shows that œdema may be due to nervous action; it is often associated with nervous phenomena such as neuralgia, and when it is localised it may be symmetrical. In cases of gastro-intestinal disturbance the reflex appears to start from the terminations of the sympathetic in the stomach or intestine. In toxic cases the agent acts directly on the nervous system. Œdema is probably always secondary in so far as it needs an excitation to produce it, and is essential or idiopathic in the sense that it is not caused by an organic disease. S. H. BOWN.

Diagnosis and treatment of tuberculosis of the middle ear and its accessory cavities ('*Rev. Hebd. Laryngol.*' 1903, No. 50, p. 699 and 705; '*Gaz. des Hôpitaux*,' 1904, p. 14; '*Otological Society of the United Kingdom*).—W. Milligan shows that infection may occur through the blood or directly from the exterior. He suspects, but has not been able to prove, that tuberculous adenoid growths may be the source of infection. The course may be acute or chronic, and in the latter case the bones are early attacked. The early appearance of facial paralysis, periotic glands, and resistance to ordinary methods of treatment are important diagnostic points. Among the cases observed by Milligan, 46 per cent. succumbed to meningitis, either tuberculous or septic, or to tuberculosis of some other part of the body. The younger the patient the worse is the prognosis. General and local treatment should be very thorough, but in debilitated children operations should be carried out in stages, as in such cases a severe operation with prolonged anaesthesia may cause dangerous shock.

S. H. BOWN.

Actinomycosis of the external and middle ear ('*Thèse de Lyon*,' 1903; '*Gaz. des Hôpitaux*,' 1904, p. 145).—G. Vielle has summarised our knowledge of this subject. Actinomycosis of the external ear is of little importance, and is usually due to an extension from a neighbouring focus. Phlegmonous inflammation of the neck is stated to be a common complication. In the case of actinomycosis of the middle ear, the author believes that the parasite reaches the tympanum by way of the Eustachian tube, or from the connective tissue around the pharynx, possibly also from the exterior by way of a perforated membrana tympani or by extension from a neighbouring lesion. He rejects the theory of a metastatic origin. The disease follows the ordinary course of a chronic otitis media, and the first objective sign is often a complication, such as mastoiditis, phlegmon of the neck, facial paralysis, caries of the bone, meningo-encephalitis, sinus-thrombosis, etc. Diagnosis can only be made by examination of the pus. The prognosis is very grave. Treatment should be both medical and surgical. The author thinks that certain cases of intracranial actinomycosis which have been described as primary or of metastatic origin may in reality have been secondary to an auricular actinomycosis. S. H. BOWN.

Bacteriology of epidemic dysentery in children ('*Wien. klin. Woch.*,' 1904, No. 25).—Karl Leiner reports an epidemic of five cases in which careful bacteriological investigations were made. Clinically collapse, dry, cyanotic skin with numerous hæmorrhages into it, thready pulse, contracted abdomen with palpable coils of intestine, and relaxation of the anal sphincter were the chief phenomena. The stools, which were passed involuntarily

about fifty times a day, were very offensive, muco-purulent, dirty grey in colour, and contained pus and blood with a little faeces. No amœbæ were found in the fresh stools. Bacilli were isolated, which showed the following characteristics: growth in agar was abundant, the colonies were rather large and had opaque areas. On potatoes a yellowish-brown colony was grown; in gelatine plates a leaf-like colony like that of typhoid. On glucose cultures no gas was produced; in bouillon or peptone water slight cloudiness occurred; in peptone water traces of indol were found after the fifth day; milk was not coagulated. The bacilli were rather thick; they did not stain with Gram; they were non-motile. In the above characteristics they agreed with those described by Kruse, Shiga, and Flexner. The clinical connection between the bacilli and the dysentery was shown in these cases by the fact that the patient's serum agglutinated them at 1 in 150. This serum did not agglutinate paratyphoid, typhoid, coli, or the bacilli of Shiga and Kruse, at 1 in 50, but did so with Flexner's bacillus. This was confirmed by the cultural experiment of growing in mannite-litmus agar, when these bacilli turned the blue to red in twenty-four hours, thus agreeing with Flexner's bacillus and not with the Shiga-Kruse one. Again, by repeated injection into rabbits on the one hand a Flexner immune serum was produced which agglutinated the author's bacillus at 1 in 1000, and on the other a Leimer immune serum which agglutinated Flexner's bacillus at 1 in 1000. Both these sera only agglutinated the Shiga-Kruse bacillus slightly in 1 in 30. The author's bacillus, again like Flexner's, was far less toxic to animals than the Shiga-Kruse bacillus. Again, a Shiga serum, which agglutinates that bacillus at 1 in 1000, only agglutinates Flexner's and the author's bacillus at 1 in 50. The evidence is, then, abundant in favour of the identity of the author's bacillus with Flexner's, and goes to establish distinct differences between this and the Shiga-Kruse bacillus. This work has an important bearing on attempts to form artificial sera for use in dysentery, for it is clear that this condition can be caused by quite different bacilli.

A. ERNEST JONES.

Therapeutics.

Epidural injections in diseases of the urinary tract (*Therap. Monatshfte.*, February, 1904, p. 74).—A. Strauss has treated a series of cases by means of epidural injections. This method of treatment, which was introduced by Cathelin, consists of the injection of local anæsthetics into the epidural space of the spinal cord. The needle is inserted at the level of the cornua of the sacrum, and the dura mater is not punctured. The process is easily carried out, and is free from all danger when performed with adequate aseptic precautions. The writer used a 0.2 per cent. saline solution, to which 2 ml. of a 5 per cent. solution of carbolic acid had been added. From 2 to 6 drms. of this solution are injected at each sitting. The number of injections needed ranged from one to nine in different cases. The writer employed the method in ten cases of incontinence of urine. He found that the process is technically of easy application, and that it is free from danger. Immediate improvement is often produced when every other means has failed. The improvement is usually lasting, and in some cases permanent cure is effected, although relapses are liable to occur. The method is especially applicable to the treatment of enuresis in young children.

E. P. BAUMANN.

The therapeutics of thigenol "roche" (*Wien. Klin. Rundschau*,

1904, No. 18).—**J. Brings** records the results of a series of observations upon the use of this drug. Thigenol "roche" is a synthetic product containing 10 per cent. of sulphur. It is prepared in the form of a syrupy fluid which dries rapidly when painted over the skin, and forms a protective covering. In drying it contracts slightly and exerts some pressure upon the cutaneous vessels. In addition to this mechanical action it appears directly to stimulate the vasomotor nerve endings, for pallor of the skin is produced even before contraction has had time to occur. Owing to this double emptying of blood-vessels the drug becomes an efficient antiphlogistic. Its application further serves to allay itching and diminish pain. It is rapidly absorbed from the mucous membranes, and so reaches the deeper-lying structures, where it lowers inflammatory processes and aids in the absorption of such waste products as have already formed. Applied to ulcers and superficial wounds it acts as a deodorant and stimulates the formation of granulation tissue. The writer has employed this drug in a large series of cases, a number of which were children. He obtained satisfactory results, not alone in diseases of skin, but also in affections of the deeper-lying organs and tissues, such as ulceration of the tonsils, lymphadenitis, and chronic joint conditions. He much prefers its use to that of ichthyol.

E. P. BAUMANN.

The feeding of children during the first two years of life (*Gaz. des Hôpitaux*, 1904, p. 13).—**Buden** and **Planchon** strongly recommend suckling whenever possible, and only resort to mixed feeding when the maternal supply is insufficient. They lay stress on the importance of avoiding over-feeding, and even prefer temporary under-feeding. They say that if the infant does not get enough food it will not grow and may even lose weight, but it will have no digestive troubles, and afterwards, when more food is given, it will grow very rapidly. The authors do not discuss artificial feeding in the first months, but state that they consider it difficult and dangerous. For children weighing 5 or 6 kilos., the general rule is laid down that they should be given daily an amount of pure milk, containing about 38 grammes of cream per litre, equal to one tenth of the body weight. During the second year the same proportionate quantity should be given and a little farinaceous food should be added, but no other food is required, and meat soups should especially be avoided. Eggs are not to be recommended on account of their cost and often doubtful quality. Of 712 infants fed in this way during one year the mortality was 46 per 1000, and none of the deaths were due to infections of the alimentary canal. During the same year for the whole of Paris the mortality among children of the same age was 178 per 1000, a sufficiently striking difference.

S. H. BOWX.

Choice of milk for artificial feeding (*La Clinique Infantile*, February 15, 1904, p. 104).—**Variot**, in his address at the Hôpital des Enfants Malades, endeavoured to show how an infant could be most efficiently and cheaply reared, since so many women were obliged to bring up their children by hand. He thought cows' milk on the whole preferable to that of the goat and the ass. The latest analysis shows the proportion of the ingredients of cows' and women's milk to be as follows:

	Proteids.	Fats.	Sugars.	Salts.
Woman	- 8	- 35	- 13	- 5
Cow	- 17	- 37	- 11	- 12

However, since the composition of human milk is extremely variable, we may infer that the infantile alimentary canal has considerable adaptive powers. Cows destined for nursery use should be carefully selected and should have been subjected to the tuberculosis test. They should be supplied with dry food, since grass-fed cows are liable to produce a milk having laxative properties. Beet-root leaves, colza, and linseed oil-cakes and malty residues should be excluded from the diet. The milk should be taken from the whole of a milking, since the strength varies according to the amount withdrawn from the udder. The cow's udder and the milker's hands should be washed with hot water and soap and the pails scalded. Most important of all, the milk should be neither skimmed, watered, nor doctored. The speaker said: The question now was how to preserve this milk, which might not reach its destination for some time. How could we prevent its becoming a breeding-place for manifold microbes? Chemical methods of preservation need not be considered—centrifugation, refrigeration and filtration have had poor results. Heat is the means most often employed either by pasteurisation, simple scalding, heating in a water bath at 100° C., or absolute sterilisation. But milk heated in a water bath must be originally quite fresh and must be used within twenty-four hours—two objections. The same applies to scalding milk. Pasteurisation also is only of temporary use. To obtain absolute sterilisation the temperature should be kept at 110° C. fifteen minutes and at 108° C. half an hour. Only thus can the spores of the casein ferments be killed. Such sterilisation performed on the spot guarantees pure milk. Against the use of such milk it is urged that indigestion, constipation, anæmia, and scurvy are caused. Variot maintained that in spite of some constipation and anæmia (prevented by occasional use of raw meat juice) the infants thrived on it, and it certainly was not indigestible. He successfully treated 3,000 bottle-feeders at Belleville, had cured many wasters, and had had no single case of scurvy; also none had been notified at the other Gouttes de Lait of Paris. His next point was: Could sterilised milk be given to the infant without further modification? The excess of casein in cows' milk is supposed to be prejudicial to the newly born. In Germany two parts water are added to one of milk. The casein is reduced—so is the fat and sugar. The speaker thought that the result of this was a dilated stomach, with all sorts of attendant dyspeptic troubles, since the infant must take an amount of fluid altogether out of proportion to the size of its digestive apparatus in order to get sufficient nourishment. In his ten years' experience at Belleville he had found it sufficient to give to those new-born children for whom pure milk was too strong one-third water, and had added a tea-spoonful of castor sugar to the bottle. He thought it better to meddle as little as possible with the milk, and, if necessary to dilute, to use only pure boiled water and sugar. He does not consider that the extra casein in cows' milk can be as harmful as generally considered; less harm is done by pure milk than by manipulated milk, and colostrum, which is the food of the very youngest, has a large percentage of casein; moreover, casein is found in great abundance in the milk of those carnivorous animals in whom growth is quickest, which argues for its nourishing properties. Finally Variot spoke against the practice so common with the people of mixing decoctions of plants, oatmeal, bran water, and bread-thickened water with the milk, all of which are dangerous from their liability to ferment. He advised the addition of two spoonfuls of Vichy water to the bottle in the case of dyspepsia, and after acute diarrhoea the mixture with the milk of an equal quantity of freshly made rice water.

A. T. BARNARD.

New hypnotic, veronal ('*Soc. de Neurol. Gaz. des Hôpitaux*,' 1904, p. 117).—**Constensoun** and **Chesnaïs** describe the results obtained by them in a number of cases of various diseases, especially neurasthenia. A dose of 0.5 centigramme, given at bed-time in a warm infusion, produced in half an hour a tranquil sleep with no troublesome prodromata or after-effects. In three cases, however, they observed a toxic rash, and they recommend that before using this drug care should be taken to see that the functions of the liver and kidneys are properly performed. S. H. BOWEN.

The action of *saccharomyces cerevisiæ* on *B. coli* in infantile gastro-enteritis ('*La Pédriat*,' May, 1904).—**G. Puoti** records a number of experiments and clinical observations and concludes: (1) Yeast does not exert any bactericidal action on *B. coli*, but modifies its properties and lessens its virulence; (2) Yeast exerts a favourable action in acute gastro-enteritis in children (2 to 4 grammes per diem dissolved in sugared water); (3) The administration of yeast to children the subjects of serious chronic intestinal disturbance does not alter the condition of vitality or virulence of the *B. coli* in the intestine. The author explains this apparent contradiction by supposing the yeast either acts on the toxin secreted by the bacillus, neutralising it, or acts on the organism which harbours the *B. coli* either by neutralising the toxic products derived from vitiated digestion or by preventing the formation of new toxic products. However this may be, yeast is a remedy to try with confidence in acute gastro-enteritis of infants.

VINCENT DICKINSON.

The therapeutics of fersan ('*Therap. Monatshefte*,' March, 1904, p. 146).—**B. Ehrmann** relates the results of a series of observations upon the therapeutics of this drug. Fersan is prepared from the fresh blood of oxen, and is used in the form of a chocolate-coloured powder. It is an acid albuminate of iron and phosphorus. Winkler and others have shown by experiments upon animals that it passes through the stomach unchanged, and is only absorbed in the duodenum. Consequently even large doses of the drug throw no strain upon the digestive processes of the stomach. Fersan has been found to produce an appreciable improvement in the amount of hæmoglobin and the number of red corpuscles of the blood. The writer used it in chlorosis, in the various anæmias, and in cases of convalescence from pyrexial states. In all these conditions the improvement produced was more rapid and striking than that obtained by any other form of iron preparation. Especially satisfactory results were obtained in the treatment of rickety children, in doses of $1\frac{1}{2}$ -2 teaspoonfuls thrice daily.

E. P. BAUMANN.

Surgery.

The ultimate fate of sufferers from Pott's disease ('*Jahrb. f. Kinderheilk.*,' 1903, vol. viii, p. 806).—**A. Hugelshoffer** gives the result of an inquiry into 215 children who were treated for Pott's disease at Bâle in the last thirty years. Tuberculosis of a near relative was present in 42 per cent. of the cases; traumatism preceded the disease in 16 per cent.; a previous tuberculous lesion in another organ was present in 18 per cent. The cervical portion was affected in 8.8 per cent., the dorsal in 49.5 per cent., the lumbar in 45.6 per cent. The cervical portion was commoner (92 per cent.) in children under the age of five than in those over (61 per cent.); this is

attributed to the influence of walking, inasmuch as the older children put more weight on to the lumbar spine. A local abscess was observed in 41 per cent. of the cases clinically, and in 82 per cent. of those who were examined after death. This abscess was present in 47 per cent. of the cervical cases, in 25 per cent. of the dorsal, and in 60 per cent. of the lumbar ones. It ruptured into the œsophagus and lung once, into the œsophagus and pleura once, and into the spinal canal once. Paralysis occurred in 10·7 per cent. of the cases, most often in the cervical cases (21 per cent.), less so in the dorsal (16 per cent.), and least in the lumbar (2 per cent.). Eighteen per cent. of the cases died during their stay in hospital; 57·6 per cent. altogether died.

A. ERNEST JONES.

A case of otitic cerebral abscess (*Med. Corresp. Blatt.* July 30, 1904).—**Kobel** records an interesting case of cerebral abscess operated on at a late stage, with recovery. A child, aged 8 years, had had left-sided otorrhœa since the age of $1\frac{1}{2}$ years following mumps, according to the mother. On January 2 she was brought to hospital complaining of headache: the temperature was 38·3 C.; for some days before this there had been frequent vomiting. For a week she appeared to improve; but on the 9th she had severe headache and lost consciousness; the temperature was 38·2° C., the pulse 130. There was some twitching of the right arm and leg and the right side of the face. Operation was performed forthwith, the antrum was opened, and a fistula from this led towards the floor of the middle fossa, where an extradural abscess was discovered and evacuated. For five days improvement was shown, but on the night of the 16th she vomited frequently and became comatose; the pupils did not react to light, the pulse was irregular. Without an anæsthetic the skull wound was extended and an abscess containing stinking pus was evacuated 4 cm. beneath the cortex of the left temporo-sphenoidal lobe. A drainage-tube was inserted. Slow improvement set in after this operation, the temperature came down gradually, and was normal after the 25th; the child left hospital perfectly recovered on March 19.

K. W. MONSARRAT (Liverpool).

Resection of the ethmoid for foreign bodies (*Journal de Médecine de Bordeaux*, July 10).—**Brindel** reports a case where half the ethmoid was removed, followed by inflammation in the orbit. Two subsequent operations were performed without effecting a cure. At a fourth two pieces of coal were extracted. As suppuration continued, a fifth operation was performed, when a piece of wood was removed. The patient, a neuro-pathic, had, though she denied it, inserted the foreign bodies at first by the natural passage, later through the fistule.

T. P. BEDDOES.

Craniotomy for tubercle (*Echo Médicale du Nord*, July 24, 1904).—**H. Gaudier** and **Bachmann**. Two years ago a girl of 10 had a swelling in the left temple, without ear trouble. It opened, was curetted twice; later a fistula formed at the outer angle of the orbit. An abscess on the foot and one on the hand burst, and left fistulæ. A flap was made from the fistula at the angle of the orbit passing to the mid-line above, and descending behind the ear; the skull cut easily. Most of the squamous part of the temporal, the parietal and half of the frontal, were removed, exposing yellow foetid pus; at the posterior part were collections the size of walnuts. Much affected bone had to be left, but a curette was used between the dura and the bone. The periosteum was sutured, drains inserted. The wound healed

readily. At no time were there any cerebral symptoms. A depression remains at the seat of operation, covered by bone or firm tissue.

T. P. BEDDOES.

Two cases of nephrectomy for tuberculous pyelonephritis (*Orros. Hétl.*, No. 7, 1904).—**Winternitz** describes two interesting cases of this character. A sixteen-months-old child had an abscess in the left loin extending from the iliac crest as far as the spleen. In spite of incision high fever persisted. It was noted that pus was being discharged into the bladder apparently from a longitudinal swelling which could be felt *per rectum* in the neighbourhood of the sacro-iliac joint, evidently an abscess connected with the bladder. This abscess was opened and proved to consist of a dilated ureter containing pus. The left kidney was exposed and a very interesting anatomical peculiarity was demonstrated. The organ consisted of two parts, with separate pelvis and ureter; one of these was in a condition of advanced tuberculosis, and in the corresponding ureter the collection of pus felt *per rectum* had formed; the ureters opened independently into the bladder. When seen two years after operation the child was in good health; the operation consisted of the removal of the diseased half-kidney with its ureter. The second case was that of a girl aged 7 years, with symptoms of tuberculous nephritis. Cystoscopy showed ulceration round the opening of the right ureter which discharged pus. The right kidney was enlarged, and tubercle bacilli were found in the urine. Right tuberculous pyelonephritis was diagnosed, the kidney was exposed, and by intercepting the urinary flow the urine from the left kidney was demonstrated to be normal. The right kidney was then removed, the ureter stump being fixed in the lower end of the incision. Iodoform injection and irrigation were carried out through this, and the bladder condition slowly improved under this treatment. In eleven months the condition was entirely healed.

K. W. MONSARRAT (Liverpool).

Treatment of old hip disease (*El Siglo Medico*, August 21, 1904).—**Saturino Garcia y Hurtado**. A patient, aged 12½ years, eleven years ago first suffered from hip disease, which in time destroyed the head and neck of the femur. The sinuses closed four years ago, leaving the limb flexed at an angle of 125° with external rotation and 9½ centimetres shortening. The rectus, semimembranosus, and semitendinosus were tenotomised, the trochanteric muscles were dissected off, and the fibrous tissue which limited extension was broken down. Forcible extension was made till the shortening was reduced to 3 centimetres. The limb was put up in plaster and constant extension used. At the end of two months the limbs were nearly equal in length. The author points out that it is yet necessary to strengthen the muscles weakened by disuse, to secure movement at the new joint, and to prevent the return of shortening.

T. P. BEDDOES.

The operative treatment of peritoneal tuberculosis (*Dent. Zeit. f. Chir.*, Bd. 71, 505).—**Thoenes** gives details of 40 cases of tuberculous peritonitis treated in the Göttingen Surgical Clinic. Among these were six boys and ten girls under the age of 15. Tuberculous peritonitis is specially a disease of youth and childhood, and affects the female more frequently than the male sex. The prognosis appears to be most favourable in cases where the condition originates in the female genital organs. Laparotomy brings about improvement in the majority of cases, and at any rate may be

relied upon to shorten the duration of treatment in cases attended by exudation. The prognosis is considerably better in the latter than in the "adhesive" form; the separation of adhesions is attended by great risk of fecal fistula. General septic infection is an absolute contraindication to laparotomy.

T. P. BEDDOES.

Imperforate œsophagus (*Société de Pédiatrie, June, 1904*).—Another case of this nature is reported by **Villemin**. The infant, aged 3 days, succumbed to gastrostomy.

A. ERNEST JONES.

Congenital goitre (*Med. Correspondenz-Blatt, June 4, 1904*).—**Schmid** records an instance of this rare condition. The child was born with the cord encircling its neck. After this was rectified it cried lustily. Twenty-four hours later symptoms of laryngeal obstruction developed, and on examination a bilateral goitre was discovered. Death occurred next day. At the autopsy there was found a well-marked parenchymatous enlargement of the thyroid gland producing compression of the larynx. The thymus was not enlarged. Beyond the signs of death from suffocation no further pathological changes were evident. It is interesting to note that the case occurred in a "goitre district." The mother herself suffered from a right-sided enlargement of the thyroid, and an older child had died at the age of $3\frac{1}{2}$ days under circumstances analogous to those of the case described. In view of these facts the writer decided to adopt antenatal prophylactic measures. During the next pregnancy the woman was therefore put through a course of treatment by thyroid tabloids. At the subsequent confinement a healthy child was born, and the mother's own goitre had considerably decreased in size. Whilst recognising that a solitary case does not prove much and that the third child might in any case have been healthy, the writer recommends the adoption of antenatal treatment in other cases of this nature.

E. P. BAUMANN.

A case of extraction of a foreign body from the bronchi (*Gazette des Hôpitaux, 1904, p. 215*).—**A. Ricard** describes the treatment adopted in this case. On February 13, 1903, the patient, a boy of $3\frac{1}{2}$ years, had a violent paroxysm of coughing, and said he had swallowed a nail. This was disbelieved, and the illness which followed was diagnosed as broncho-pneumonia. The symptoms, however, continued, and on March 23 a radiogram was taken. This showed a small dark mass at the inner end of the sixth left intercostal space. A special electro-magnet was made for introduction into the bronchi, and also a special pair of double-curved forceps. On April 6 tracheotomy was performed, and an unsuccessful attempt made to extract the nail. On April 9 the child was again anaesthetised, and at the second attempt a nail, 15 mm. long, was seized with the forceps and removed. Rapid recovery followed. The signs suggestive of such an accident are said to be the following: (1) The delay in the appearance of broncho-pneumonia; (2) the capricious course of the pneumonia; (3) coughing incited by movement, examination, etc.; (4) the paroxysmal character of the cough; (5) relative maintenance of the general health.

S. H. BOWN.

The treatment of congenital cleft palate: A plea for operations in early infancy (*Med. Rec., July 9, 1904*).—**Truman W. Brophy**, of Chicago, read a paper before the American Surgical Association in June of

this year in which he reviewed an extensive literature and deduced, from a series of 927 operations performed by himself, that the most desirable time for operating was from ten days to three months after birth. In favour of early operation the following advantages were adduced: (a) surgical shock was less in the undeveloped nervous system of the young infant; (b) the reaction of young children is usually very good; (c) alarm and dread as factors in producing shock were eliminated; (d) the deformity was much more diminished than when the operation was postponed for several months or a few years; (e) operations during early infancy were followed by good speech later. After detailing the various stages in the technique of the operation, Brophy explained the great necessity of prolonged and careful instruction under a patient, able, and persevering nurse in the case of those children who had not been operated upon during early infancy.

J. HOWELL EVANS.

Renal lithiasis in children (*Rev. Mens. des Malad. de l'Enf.*, May, 1904, vol. XXII, p. 205).—A. Mousseaux, of Vittel, has analysed seventy-seven cases of this complaint in children between the ages of one and fifteen. The age of onset showed a slight predilection for the years between eight and twelve. Sixty-six per cent. of the cases were boys, 34 per cent. girls. Heredity played a part in 84 per cent. of the cases. Uric acid was the commonest form (73 per cent.), the others being phosphatic, except one which was oxalic. The onset of the complaint is often gradual, and passage of gravel may precede other evidences for a long while. Renal colic is not so rare in children as is imagined, and the author has seen twenty-five cases, mostly between the ages of nine and twelve. Though uric acid is its commonest cause, oxalic acid produces more severe and repeated attacks. The right side is most often affected. With the pain appears frequent vomiting, but no diarrhoea; frequent acts of painful micturition, only a few drops of dark urine being passed, are also accompaniments. Hæmaturia only occurred in 10 per cent. of the cases. The urine in the uric acid cases is of small quantity, high specific gravity and acidity, and has in suspension brilliant orange crystals of uric acid; glucose was present once and albumin in eight cases. Complications are very rare; the author has never seen hydronephrosis or any septic phenomenon. Slighter symptoms, such as epistaxis, headaches, urticaria, etc., are considered. In the diagnosis of the colic the author lays stress on the course of the pain and tenderness along the ureter, the dysuria, the absence of diarrhoea, and the rapid recovery. The duration of the complaint is very long, and often in the adult renal or vesical stone can be traced to lithiasis in infancy. The prognosis depends greatly on the question of an arthritic family history. In treatment the author relies upon a vegetable diet combined with "lavage." A. ERNEST JONES.

A case of intussusception with cure by sloughing (*Archives of Pediatrics*, July, 1904, p. 494).—Irving M. Snow.—The patient was a male child aged 7 months. The illness began by vomiting, which lasted for three days and then ceased; slight fever then occurred, and diarrhoea of a dysenteric nature set in, blood being frequently present in the stools, which were thin in consistence and mixed with mucus. Symptoms had persisted for sixteen days when the child was first seen. The child was very ill, and a mass of necrotic intestine was found prolapsed from the anus. The protruded necrotic mass, which was six inches long, was ligatured and cut off, the stump being pushed back into the rectum. The child rapidly

improved and made a complete recovery. The remaining portion of the necrosed intussusception was either absorbed or passed unnoticed in the stools. The cure of intussusception by sloughing is rare, and especially in infants under one year of age. Mr. Snow has collected four other cases from the literature. Henoch's case of a child aged 12 months, in which $2\frac{1}{2}$ inches of intestine were passed per anum on the third day after the onset of symptoms. Beeston's case of a child aged 7 months; the gangrenous intestine was passed after symptoms of intussusception had persisted for four days. Cripps's case of a girl aged 7 months, who recovered after an illness of fourteen days by gangrene of the intussusception. The mass protruded from the rectum and part of it was removed, the remainder coming away piecemeal for a month. This patient subsequently died of scarlet fever, and at the autopsy it was discovered that the small intestine was attached to the anus, the whole of the large intestine having sloughed away. And lastly, Steinmeyer's case of a child aged 6 months. A segment of gangrenous bowel was passed per anum on the seventh day after the onset of symptoms. It was 27 cm. long, and consisted of small intestine and ascending colon. This makes a total of five cases of the cure of intussusception by sloughing in infants under one year old.

P. LOCKHART MUMMERY.

Congenital dilatation of the gall-bladder and bile-ducts. (*The American Journ. of Obstetrics*, vol. XLVIII, No. 2, 1903.) *Abstract from 'Johns Hopkins Hosp. Bull.,' March, 1904.*—**G. Brown Miller.** The patient was a girl aged $2\frac{1}{2}$ years. It was noticed that the child had an exceptionally large abdomen at birth. A few days after birth the abdomen measured $24\frac{1}{2}$ inches in circumference. The child developed normally and seemed healthy except for the abnormal size of the abdomen. It was observed that the stools were abnormal in colour at times. At the time when the child came under observation the stools varied in hue from a clay colour to a light brown. The child had a very large abdomen, but nothing definite was made out, and an operation was decided upon. On opening the abdomen it was discovered that the size of the abdomen was due to an enormous dilatation of the gall-bladder and ducts. The gall-bladder was opened and three litres of thin bile and mucus were evacuated. No gall-stones were discovered. After the operation a biliary fistula persisted for three months, and the stools during this time remained light in colour. At the end of the three months, however, the fistula closed, and at the same time the stools became normal in appearance. The distension of the abdomen disappeared, and the child was quite well one and a half years after the operation.

P. LOCKHART MUMMERY.

Sudden death after an operation for empyema (*Pediatrics*, May, 1904).—**John H. Gibbon**, in an article entitled "Two Cases of Empyema," records the case of a boy aged 7 years on whom he had operated for right empyema; the boy had also a pyæmic abscess of the right shoulder. The empyema was freely drained and the abscess in the shoulder opened. Several weeks later, and just after the wound had been dressed, the child suddenly died. The pleural cavity had not been irrigated and there was no apparent cause for the sudden death. This case is of interest as irrigation is sometimes deemed responsible for these cases of sudden death after empyema, and it is important, therefore, to record a case where sudden death occurred without irrigation having been performed.

P. LOCKHART MUMMERY.

Congenital diaphragmatic hernia (*Revue Mensuelle des Maladies de l'Enfance*, April, 1904).—**M. P. Nau** divides congenital diaphragmatic hernia into two classes according to the stage of development at which they occur. The pleuro-peritoneal septum which is completed at the end of the second month is formed by a central mesenteric portion, and two ventro-lateral and two dorso-lateral portions. The dorso-lateral portions are the last to be completed by the growth of the two pillars of Uskow, which separate the lungs from the liver. After the second month further growth in the diaphragm consists in the formation of muscular tissue which starts as a thickening around the oesophagus at the end of the third month or rather later, attached to the vertebrae behind. Very shortly after this there appear two slight muscular ribbons attached round the periphery of the diaphragm, but not coming into contact in front. These ribbons gradually extend towards the centre to form the muscular portion of the diaphragm. A hernia without a sac will accordingly be one formed before the completion of the pleuro-peritoneal septum, *i.e.* before the end of the second month. This M. Nau calls an "embryonic diaphragmatic hernia." A hernia with a sac will, on the other hand, be one formed after the completion of the septum, after the end of the second month, and to this class he gives the name of "fœtal diaphragmatic hernia." He further subdivides embryonic hernia into complete, when the dorso-lateral portion is completely absent and the posterior and outer part of the ring is formed by the body wall; incomplete when this portion is partly formed and the ring is everywhere surrounded by muscle; and complex when the neighbouring pillar shares in the lack of development. Fœtal hernia he divides into hernia by default, when the muscular tissue is quite absent; hernia by weakness, when the muscle is ill developed; and hernia through an orifice, when it passes through the opening which transmits the oesophagus. He finds from 130 cases collected by Paillard that herniae, both embryonic and fœtal, are always lateral and occur four times as frequently upon the left side as upon the right. He explains this by the earlier development of the right side, the greater strength of the right side and of the right pillar, and the natural tendency for malformation in general to occur upon the left side, owing to an early rotation of the body, causing deficient nutrition upon that side. In regard to the contents of such a hernia he finds that in 130 cases the liver was present in 53, and was not only displaced and rotated, but, owing to its plasticity, was also deformed. The stomach was present in 58 cases, and was usually accompanied by the spleen and pancreas. The cæcum was found fourteen times. Adhesions of the viscera to the ring were exceptional.

SIDNEY GILFORD.

Multiple lipomata of the kidneys (*Echo Médical du Nord*, July 3, p. 322).—**Raviart** and **Caudron** publish the case of a girl of 18, who at the age of two had convulsions which left her deaf and dumb, followed by epileptic attacks, from which she died. The kidneys were large from nodular new growths, some of them 4 cm. in diameter, some in the substance of the organs, some reaching 7 to 8 mm. above the surface. They were lipomata, apparently of congenital origin.

T. P. BEDDOES.

Perinephritis in children (*Pediatrics*, New York, July, 1904).—**W. R. Townsend**, at the annual meeting of the American Medical Association in June, 1904, drew attention to the occurrence of perinephritis in children. This condition was rarely diagnosed correctly and almost never

before the formation of an abscess, but differentiation, he said, was possible. The conditions for which it might be mistaken were Pott's disease or hip-joint disease. It might be diagnosed by the difference in the appearance of the stiffness about the part affected in the former and in the immobility of the hip-joint in the latter, from lumbago in the absence of leucocytosis in this, while an increasing leucocytosis occurs in perinephritis. The treatment, he said, was expectant—rest in bed and milk diet, till abscess formation, then it should be operated upon. Jacobi called attention to the etiological importance of constipation in this condition.

J. W. THOMSON WALKER.

Umbilical cord hernia (*Archives of Pediatrics*, June, 1904).—**Martha Wollstein** reports a case of this condition. The child was one of twins. It was a male child and had, in addition to the hernia, epispadias. The hernia was about the size of a small pear, and its outer covering consisted of umbilical cord-tissue: there was a sharp line where this joined the skin at the base of the hernia. The child died, and on examining the contents of the hernia it was found to consist of the cæcum, vermiform appendix, and three inches of small intestine. There was also a well-marked Meckel's diverticulum on the portion of intestine contained in the sac.

P. LOCKHART MUMMERY.

Reviews of Books.

ANNUAL REPORT OF THE MEDICAL OFFICER OF THE LATE LONDON SCHOOL BOARD FOR THE YEAR ENDED MARCH THE 25TH, 1904.

THIS, the last Medical Report of the now defunct London School Board, presents some unusual features of interest, and marks a new stage in the scientific study of school hygiene in London. The report is divided into six parts, the largest of which deals with the various infections. On reading it one is at once impressed with the great increase in the work that has taken place in the last very few years, and it is a surprise to find that the staff responsible for the work is so limited. Great as this increase has been, however, it only serves to indicate the vast extent of what remains to be done, and to point out the paths along which studies so important to the welfare of our city will run in the future. It also throws into strong relief the darkness in which we were groping ten years ago, and even more recently, in such matters. This report is an unanswerable argument to the authorities who claim that the medical aspects of elementary education are relatively unimportant, so unimportant that until quite recently no expert advice on the subject was considered necessary in London. Indeed, even now this aspect of education is officially ignored by the Government Board of Education, and is only taken into consideration by certain School Boards, not under compulsion, but from their individual initiative, a state of affairs which is a constant source of wonder to the thoughtful and satire to the cynic.

First is given the results of nearly 3,000 examinations of teachers. These reveal no unusual fact beyond the difference in the proportion of uncorrected

ocular defects in men and women, the latter having such defects nearly twice as often as the former. Under the heading of "Visits," we find that over 115 visits to schools are paid every week by the medical and nursing staff. The question of a statistical inquiry into the physical conditions of the children was fully considered last year, and a detailed scheme drawn up. It was proposed to attempt to correlate the educational status, the physical development, and the social position of 50,000 children, a plan which would cost £700 to carry out. On the ground of expense the proposal was adjourned *sine die*. It is possible that this was a wise decision for other reasons. There is much to be said for the opinion that the collection of vital statistics should be the duty of a Government Department, as is the collection of mortality statistics at present. Otherwise it would be difficult to secure uniformity in results throughout the country, as most of the data recorded—all save height and weight—are based on quite arbitrary standards.

The subject of "personal cleanliness" is next considered. Little, if anything, seems to be done in the matter of such conditions as blepharitis, corneal ulcerations, discharging ears, dirty wounds and sores. A considerable amount of attention, however, has been devoted to ringworm, favus, and phthiriasis. Favus is considered incurable, and the cases are permanently excluded. Ringworm in many cases becomes extremely chronic, and lasts longer than is often thought. Surely, seeing the large number of such cases in London, it is advisable to establish one or more special schools. This would probably have the effect of greatly diminishing the frequency of the condition, as contagion would be so much lessened by the taking of special precautions. The ripeness of pediculosis is shown by the statement that one girl in every three is infected. An ingenious system has been put into vogue for the treatment of these two conditions, six nurses being employed to systematically visit schools, and, in certain cases, homes. It speaks much for the tact of these nurses that it has only been necessary to prosecute for neglect five of the parents of nearly 1500 verminous children. That this system needs further developing is clear, when we see that each nurse is responsible for over 100,000 children; in fact, it is confessed that some schools have not been visited once in six months.

It is in the section dealing with the relation of infectious diseases to school work that the most advance has been made recently. Until lately school closure on account of prevalent infection was carried out in a haphazard fashion, but now certain general principles have been laid down, and its value as a mode of combating infection accurately studied along scientific lines. There is necessarily some antagonism of interest between the desire to prevent the dissemination of disease and the fear of losing the benefits of school attendance. We would suggest that in cases of doubt it would be well to remember that the advantage, both to the individual and to the nation, of health is far less equivocal than that of education as at present carried out. Notification of a fresh case is sent to the head master and thence to the medical officer of the Board. There is room for improvement in the methods here adopted, as earlier knowledge of the infections means increased powers of coping with them.

There has been no special epidemic to record during the past year: still, over 3300 notifications are received at the central offices every week, including non-notifiable diseases, such as measles, mumps, and whooping-cough. In the case of scarlet fever the modern experience of fever hospitals is confirmed as regards the innocuousness of peeling cases and the danger of

convalescents with discharging ears and nostrils. Several instances are mentioned of hospital "return" cases, and also of such cases acting as diphtheria carriers after their stay in hospital for scarlet fever. It is in diphtheria and measles that the most research has been done, and several interesting points on these diseases will be alluded to later.

(*To be continued.*)

A. ERNEST JONES.

ADENOIDS. Medical Monograph Series, IX. By WYATT WINGRAVE, M.D.
Published by Baillière, Tindall, and Cox. Price 2s. 6d.

THE illustrations, print, and arrangement of this book are good. The anatomical section is full and complete. In the section on etiology we note with surprise the prominence given to constitutional diatheses and susceptibility to colds. The writer does not believe in primary tuberculous infection of adenoids. In 250 cases which he examined, evidence of tubercle was found in fourteen only, in all of which there was tuberculous disease of neighbouring organs. The excessive use of the nasal douche is also credited with being an important etiological factor.

In the section on signs and symptoms attention is called to torticollis following the presence of enlarged cervical glands, themselves the result of adenoids.

Special stress is rightly laid on the importance of the digital examination in diagnosis, but we think that the preliminary use of cocaine as a local anæsthetic is quite unnecessary.

The long list of conditions which may be mistaken for adenoids seems unnecessarily large. Operative interference is specially called for when there are ear complications and when the naso-pharynx is very small. The operative details are very full, but it was unwise to omit all mention of the necessity for strict asepsis.

The section on after care is good: special stress is laid on the importance of teaching the child to use the handkerchief properly. The value of skipping with closed lips is strongly brought forward.

Recurrence is attributed to inadequacy of removal or neglect of after care. The last section of the book is devoted to anæsthetics. The writer of this part, Mr. Notten George, advises the use of nitrous oxide except to children under three, when somnoform or ethyl chloride should be given. Chloroform should never be given. The book, as a whole, fills a worthy position in this useful series.

T. L. LLEWELLYN.

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Original Articles.

ON AN ILL-DEVELOPED UPPER LATERAL INCISOR
TOOTH AS A FORERUNNER OF HARELIP OR CLEFT
PALATE.*

By R. CLEMENT LUCAS, B.S., F.R.C.S.,

*Senior Surgeon to Guy's Hospital; Consulting Surgeon to the Evelina
Hospital for Children.*

THERE is a tendency and often a desire to represent a congenital deformity as something which has suddenly developed *de novo* and as a defect which is to be explained by some accidental occurrence during pregnancy or labour. An enormous amount of ingenuity is in many cases expended by the parents, relations, friends, and even the family doctor, to place the defect before the world as a mere accident that would never have occurred if such and such a sight had not by chance been encountered by the mother during her pregnancy, an incident that occurred probably long after the establishment of the defect *in utero*, and entirely forgotten till raked up to explain away the unfortunate deformity in the child. Superstitions die hard even in a highly civilised and generally intelligent community, and blame is an imputation which every one desires to

* Read before The Society for the Study of Disease in Children, October the 21st, 1904.

transfer from himself to his neighbour; or should no one be found conveniently placed to bear it, then a spiritual influence that cannot be questioned is usually called in to account for what natural causes may still be able to explain.

I have attempted to show that in the case of harelip and cleft palate there may have been through generations an unnoticed defect in the natural line of junction between the incisor bone and maxilla. Then the marriage with another who by chance has inherited through some ancestor a weakness of development in the same part, or possibly, simply as the result of deprivation of proper nutriment during the developing period, a well-marked distinct and obvious deformity noticeable by all may become developed.

Besides the ingrained tendency to adhere for all time to superstitions which fancy favours, however reason rebels, there is another very human faculty, which is to accept nothing new from any one with whom one has the slightest acquaintance, unless perchance it has first been published in a foreign language as the observation of some distinguished foreign professor. Thus, sound observations often lie dormant for years till some honest worker in the same field unearths what might have prevented many fallacies had it been tested, and proved or discarded, shortly after the observation had been made. From this neglected heap I dig up the following observations published sixteen years ago.

In the Clinical Society's 'Transactions' for the year 1888, page 64, I published a short paper "On the Congenital Absence of an Upper Lateral Incisor Tooth as a Forerunner of Harelip and Cleft Palate." There were three observations bearing upon this relation in the paper referred to. In the first a gentleman who, as a boy, was noticed to have an absence of the left upper lateral incisor, had an only daughter who presented precisely the same defect on the same side. As this only child has never married there is no chance of proving the relation of the defect to harelip and cleft palate in that family. It proves, however, that the congenital absence of an upper lateral incisor tooth is a defect which may be transmitted, and that the transmission may be through the opposite sex.

The second case was brought among my out-patients at the Evelina Hospital in 1883. An infant suffering from harelip on the right of the median line was brought by a mother who had congenital absence of the right upper lateral incisor tooth. The mother was twenty-five years of age, had been married seven years, and this was her fifth child. There was an interval of one year and eight months between this child and the one

before, and she had continued to suckle until she fell pregnant again. The mother's lip was perfectly normal. There was no notch or scar upon it, but her right upper lateral incisor was known to have been absent, and it had never been extracted. The other teeth were well formed. The child had also double inguinal hernia and an umbilical one. It would seem that the exhaustion of the mother by repeated pregnancies and prolonged suckling was a factor in determining the appearance of the deformity.

The third case was that of a child with harelip and cleft palate on the left side, whose mother had absence of the left upper lateral incisor tooth. She was twenty-three years of age, and this was her first child. They came under observation in April, 1887. The mother was one of a large family, none of whom had shown any deformity. She was a pale, delicate-looking woman. A sister and an aunt had died of consumption. She knew of no defect in her husband's family. Her lip was perfect. She was positive that no tooth had ever been extracted from the front of her mouth, though she had lost one or two molars.

From these observations I concluded that *the absence of an upper lateral incisor tooth resulting from an arrest of development is to be regarded as a malformation closely related to harelip and cleft palate, and capable of transmitting each or both of these deformities to a succeeding generation.*

I have now to record two further observations which show that a lesser deformity than congenital absence of the upper lateral incisor tooth, and one more likely to be overlooked, may indicate the possible occurrence of harelip or cleft palate in a subsequent generation. These observations, which I mentioned in the Wightman lecture, go to show that a defective development in an upper lateral incisor is a danger signal in reference to these deformities which should not pass unnoticed.

CASE I.

Right-sided harelip and complete cleft palate in the first child of a mother who had an imperfectly developed right upper lateral incisor tooth, and who had been operated on for harelip in childhood.

E. R—, aged 3 months, was first admitted under the late Mr. Durham's care into Guy's Hospital on October the 8th, 1892, and was discharged without operation on January the 27th, 1893.

She was readmitted under Mr. Clement Lucas's care in Lydia

Ward, on July the 26th, 1893, and the case was reported by Mr. F. W. Rowland.

The mother showed the scar of an operation in childhood for harelip, but the defect had not extended to the palate. The teeth were all well developed except the right upper lateral incisor, which was narrow and pointed towards the end. A painting was made of this condition by the artist to the hospital.

The infant, a girl, presented an oblique fissure through the upper lip to the right of the median line extending into the nostril. On the left side of the fissure the premaxillary bone projected prominently forward, and to the right. The cleft extended backwards along the roof of the mouth through the alveolus and hard

FIG. 1.



and soft palate. The fissure in the lip was about a quarter of an inch in width, whilst that in the palate was about half an inch. The child was extremely thin.

On August the 18th the harelip was operated on, and on August the 24th, complete union having taken place, the child was discharged.

CASE II.

Harelip in an infant whose mother had a perfect lip, but an ill-developed upper lateral incisor on the same side as the child's harelip.

W. J—, aged 6 weeks, a boy, was admitted into Martha Ward, Guy's Hospital, on June the 10th, 1903, and discharged on June the 20th as he was not in a fit state for operation.

He was readmitted on August the 17th, 1903, and discharged on September the 18th after operation.

The case was reported by Mr. F. J. H. Wood. The patient was the first child of young parents. The left side of his upper lip presented a cleft which extended up into the left nostril. The left

FIG. 2.



nostril was much wider than the right. The mother knew of no deformity of the kind either in her husband's or in her own family. Her own upper lip showed no defect, but Mr. Lucas, on examining her teeth, pointed out that she had a remarkable narrow ill-developed upper left lateral incisor tooth which he considered was related to the deformity in the child. The mother's teeth were photographed, and a sketch was also made showing the relative size of the defective tooth to the others, which were all large, well-developed teeth.

September the 8th.—The harelip was operated on and sealed iodoform dressings were applied over.

September the 11th.—The sutures were removed.

September the 18th.—He was discharged cured.

When I read my paper sixteen years ago, On the Absence of the Upper Lateral Incisor as an Indication of the possible Occurrence of Harelip and Cleft Palate in a Succeeding Generation, some dental surgeons present declared that the lack of eruption of certain teeth of the second set was a matter of common observation, and that no clinical importance need attach to it. But what I wish to again insist upon and to maintain is, that with a weakened development in

FIG 3.



the line of junction between the pre-maxillary and the superior maxillary bones the lateral incisor tooth becomes involved in the defect, and may either fail to be cut or, if erupted, may show a defective development that is a danger-signal as to results which may happen in subsequent generations. It will be observed that the obvious secondary deformity may show itself in the soft structures alone as a harelip, or both palate and lip may be involved in the next generation.

So far, I have no observations on the condition of the milk teeth in these cases, but I think it highly probable that the primary teeth may indicate the defect as well as the second set.

It is seldom that one has an opportunity of examining the father's teeth, but, as in the first observation made, the absence of a lateral

incisor was transmitted to a daughter, it shows the necessity of examining the teeth of both parents to obtain evidence of a prior defect.

Further, it must not be expected that every child of a person showing defective development or absence of an upper lateral incisor should inherit either the same or an increased deformity; and although most of those recorded were first children born, in one case four normal children were born before a deformed child appeared.

FOREIGN BODIES IN THE EYES OF CHILDREN.

By SYDNEY STEPHENSON, C.M., F.R.C.S.E.,

Editor of the 'Ophthalmoscope.'

To be called upon to remove a foreign body from the eye must be an almost daily event in the life of most busy practitioners. Yet it is astonishing how frequently the presence of these substances is overlooked, more especially in young children, who seldom if ever are capable of giving a clear history. In grown-up people these mistakes occur comparatively seldom, since in most cases the patient is fully aware of what has happened, or else gives an account of pain and discomfort having suddenly begun at a moment when he was exposed to the intrusion of foreign substances, as when riding outside an omnibus, leaning out of a railway carriage window, and so forth. Still, every ophthalmic surgeon is, unfortunately, familiar with cases where the inflammation resulting from such a cause has been treated, while the cause of the inflammation, in the shape of a foreign body, has been overlooked altogether.

Foreign bodies in the eye may be of the most varied nature, but the things commonly met with include bits of coal, coke, or cinders, tobacco ash, particles of metal or grit, flies, and insects of different kinds.

When the presence of a foreign body is suspected, the first step is to make a careful examination in a good light. Difficulty is frequently experienced in doing this, since the foreign body often causes lachrymation, spasm of the eyelids, and dread of light, symptoms that in children especially tend to render such an examination anything but an easy task. Some help can, however, be got if the child be persuaded to keep his uninjured eye opened during the investigation.

In particularly difficult cases a general anæsthetic should be administered, and under these circumstances ethyl chloride is very suitable. But in whatever way the end is attained, a careful scrutiny must first be made of the cornea and of as much of the ocular conjunctiva as is exposed to view when the eye is opened. The lower lid is next drawn down, and its conjunctival surface examined. After that, the upper lid is everted, and its conjunctival surface carefully scrutinised for a foreign body. The last step of all, supposing the previous search has yielded negative results, is to expose the superior *cul-de-sac*—that is to say, the folds of conjunctiva that lie above the upper eyelid. In tractable patients this may often be brought into view by pressing the eyeball upwards while the upper eyelid is held everted. In patients who are under the influence of a general anæsthetic, there is seldom any serious difficulty about exposing the folds. In the last resort, a camel-hair or sable brush, moistened with boric lotion, may be passed into the *cul-de-sac*, and used to sweep the folds in the hope of entangling the intruding substance and of thus removing it. Syringes have been used for a similar purpose. One obvious precaution should invariably be adopted, namely, when a foreign body has been removed, say, from the surface of the cornea, never neglect to search the other parts of the eye, in order to make sure that a second body is not left behind. I have seen this mistake made on several occasions by those whose experience should have precluded anything of the kind.

A solution of cocaine or holocaine, so useful in adults, when dropped into the eye prior to the removal of a foreign body, is of little or no service when dealing with young and timid children. Darier* has recommended that a 5 per cent. solution of the new morphine derivative, dionine, should be applied in cases where the substance is lodged in the cornea, in order that it may become loosened before any attempt is made to remove it. For my own part, I have never found it necessary to resort to this somewhat roundabout process.

It is a familiar observation that some individuals are peculiarly prone "to get things into their eyes." In such cases the eyelashes will invariably be found to be thin and scanty. It is necessary to observe that the suffering caused by a foreign body depends upon several factors, of which perhaps the most important are the smooth or rough surface of the substance, the precise position where it is lodged, and the sensitiveness or otherwise of the patient to pain. It may also be pointed out that the symptoms do not, as a rule,

* Darier, 'Die Ophthalmologische Klinik,' July the 5th, 1904.

simulate those of any kind of conjunctivitis, as the text-books insist. On the contrary they remind one far more closely of an inflammation of the cornea, including, as they do, photophobia, ciliary redness, lachrymation, blepharospasm, and pain. The tolerance of an eye to the intrusion of foreign bodies is sometimes surprising. When I was in charge of the Ophthalmic School at Hanwell, an institution primarily intended for poor-law children afflicted with trachoma ("granular lids"), the eyelids of most of the inmates, over 300 in number, were everted frequently to admit of the application of remedies to the diseased conjunctiva. On windy days I have often removed foreign bodies, sometimes of large size, from the conjunctiva, of whose existence the children were altogether unconscious. Complaints, indeed, were the exception rather than the rule.

We distinguish between foreign bodies in or upon the conjunctiva and the cornea.

Conjunctiva.—Nine times out of ten the foreign body lodges on the inner surface of the upper lid, in a small groove (the sub-tarsal sinus) which runs parallel with the free border of the eyelid. Pain and discomfort are then considerable, owing to the cornea being continually fretted by the movements of the upper eyelid. Removal is quite a simple affair. It is merely necessary to evert the eyelid, and to lift off the substance with the point of the small instrument sold for the purpose, and known as the "corneal spud." A piece of damp cotton wool, twisted to a point, may also be employed for the purpose, in the absence of a more formal instrument. A very remarkable case was reported by William Mackenzie in his 'Practical Treatise on the Diseases of the Eye' (fourth edition, 1854, p. 231). A child was brought suffering from severe inflammation of one eye, accompanied by a puriform secretion. From under the edge of the upper lid there projected a black, roundish body, which, at first view, even so acute an observer as Mackenzie thought might be a protrusion of the part of the iris through an ulcer of the cornea. His surprise was great when, on cautiously raising the upper eyelid, he found this was a case not of figurative but of real myocephalon. A common house fly had been firmly lodged for eight days between the eyeball and the upper eyelid, its head projecting in such a way as to produce the appearance described.

Foreign bodies, as already said, may lodge in the sulcus that lies above the upper eyelid, the superior *cul-de-sac*, and in that position they give rise to little discomfort and may readily be overlooked. In the latter event the most anomalous appearances may be met with,

particularly when the substance has been present for several weeks or months. A child, aged 5 years, presented a red and fleshy mass, as big as a pea-nut, growing out of the eye, and springing from the outer end of the upper conjunctival sac. Under an anæsthetic I snipped away the growth, and found at its point of origin from the conjunctiva a bit of straw, nearly half an inch in length. I have met with several similar cases, without exception in young children. Dr. Deschamps, of Grenoble, has recently pointed out* that in practically every case of so-called polypus of the conjunctiva that has fallen under his notice a small embedded foreign body has been the cause of the mischief. While it is true that in most cases these polypi originate from the superior *cul-de-sac*, yet I recently met with a case where such a growth was situated in the ocular conjunctiva, 6 mm. or so from the edge of the cornea. The appearance presented was that of a fleshy mass, the diameter of which measured 4 mm. It was removed, and a little piece of bristle from a bass broom found to lie at its root.

A foreign body, usually an eyelash, may lodge in the upper or lower punctum lacrymale, a position where it may lead to considerable irritation of the eye. For my own part, I have twice removed cilia from the lower punctum. At the Ophthalmic School it was not an uncommon event to remove short hairs from the puncta of boys a day or two after the barber had visited the institution. Certainly, in my experience, foreign bodies in the puncta are not so rare as current statements might lead one to think.

Cornea.—A slight injury of the cornea, such as is inflicted by a foreign body, is in elderly persons with unsound tear-passages the common cause of one of the most destructive forms of corneal ulceration, the so-called *ulcus serpens* or *hypopyon-keratitis*. We distinguish between foreign substances embedded superficially and deeply in the cornea. The former, much the more common, should be removed as soon as they are found, the eye having first been rendered insensitive by a few drops of cocaine, 2 per cent., and adrenalin hydrochloride, 1:1000. In very young children a general anæsthetic, however, will almost certainly be required. The substance is taken away with the corneal spud or by means of the twisted wool mentioned before.

It is with deeply-embedded bodies, however, that mistakes in diagnosis and treatment are likely to arise in children. A rule might be formulated, namely, that whenever you come across in a child a lesion of the cornea that does not resemble any ordinary

* 'Annales d'Oculistique,' 1903, i, p. 429.

speck, infiltration, or ulcer, suspect the existence of a foreign body, and do not allow the patient to leave without satisfying yourself as to the truth or falsity of that view. A few weeks ago, a child of $2\frac{3}{4}$ years was brought to me with the statement that a speck had been noticed on one eye for several days. Upon examination, I found a greyish, semilunar figure at the centre of the cornea. It resembled no lesion that I was familiar with. Under ethyl chloride, I removed a paring from a child's nail, which was rather deeply embedded in the substance of the cornea. On the 18th of February last a small boy, aged 4 years, was brought to me at the North-Eastern Hospital for Children on account of a speck, which had been noticed for about a week, on the right eye. The eye was red, and showed a degree of photophobia. In the lower inner segment of the cornea lay a yellowish humped mass, presenting a curiously dry appearance. It was surrounded by a distinct groove in the tissue of the cornea. The mass extended from the limbus 4 mm. into the tissue of the cornea. Under ethyl chloride, it was readily detached with the aid of a cataract needle, when it proved to be a seed-husk. I have had somewhat similar experiences with the operculum of the periwinkle, elytra of certain insects, and other singular foreign bodies.

The following case, which represents another kind of injury calling for different treatment, fell under my notice not long ago. A girl, aged $5\frac{1}{2}$ years, had suffered from an inflammation of one eye, without known cause, for some days. Upon examination, I recognised a greyish line in the depths of the upper-inner part of the cornea as being an embedded splinter of wood. The patient was admitted into hospital, an anæsthetic was given, and an incision was made close to either side of the splinter, not a vestige of which projected above the surface of the cornea. I was unable to seize with fine forceps any bit of the foreign body. Accordingly, with a cataract knife I made a radial incision close to the intruding substance through the entire thickness of the cornea, of course opening the anterior chamber and letting the aqueous humour escape in doing so, and in that way seized and withdrew the body, which proved to be a sharp splinter of wood, just one eighth of an inch in length. The eye made a good recovery, without any entanglement of the iris in the corneal cicatrix.

A still more awkward accident is for a foreign body to be so deeply embedded in the cornea that there is a risk of pushing it into the anterior chamber during attempted removal. Under such rare circumstances it is customary to insert a broad needle into the

anterior chamber so as to support the substance whilst the latter is seized from the front and pulled out.*

The lodgment of foreign bodies, especially metallic particles, in the eyeball itself opens up a large and interesting chapter in ophthalmic work. Into that, however, I do not intend to enter here. I would merely say that many eyes, formerly doomed to destruction by reason of such accident, are now saved by the universal employment of the X-rays to localise the particle and of the electro-magnet to remove it. That is one of the most satisfactory pages of preventive medicine that can be found in modern text-books of ophthalmology. Neither do I purpose to discuss the extraordinary tolerance often shown by the orbit even to large foreign bodies, as hat pegs, and so forth.

One word in conclusion. After removing a foreign body from the cornea, never omit to render the parts as aseptic as may be and to keep the eye tied up until such time as the corneal epithelium is regenerated. Moreover, bear in mind that a polypus of the conjunctiva almost invariably denotes a foreign body, and that out-of-the-way corneal changes are not infrequently due to the same cause.

FRACTURE OF THE FEMUR IN A HÆMOPHILIC.

By KEITH MONSARRAT, M.B., C.M.EDIN., F.R.C.S.,

Surgeon, Northern Hospital; Assistant Surgeon, Children's Infirmary, Liverpool.

A BOY, aged 8 years, was admitted under my care into the David Lewis Northern Hospital, Liverpool, on February the 11th, 1904. Shortly before admission he had been knocked down by another boy while playing in the street. Examination showed that he had sustained a fracture of the left femur, about the centre of the shaft, oblique from behind, forwards, and downwards—as shown by the radioscopic screen, and with an inch shortening. Under an anaesthetic the deformity was corrected and local splints with a “long Liston” were applied to the limb. During the next few days there was much swelling at the fracture site, and the boy complained of pain which kept him awake at night. On the 18th, a week after the accident, the local effusion showed no signs of disappearing, but rather a steady increase; the apparatus was changed, extension tapes were applied, the local splints were retained, and the limb was

* For a good example by the late Mr. Frank H. Hodges, of Leicester, see ‘Ophthalmic Review,’ vol. ii, 1883, p. 133.

elevated to a right angle with the body axis and the extension apparatus fixed to a scaffolding over the bed. On February the 21st, three days later, it was noted that no local improvement had taken place and that the temperature had been steadily ascending by evening rises, partly sustained, up to 102° F. on this day. The local swelling was at this time definitely fluid in character, and taken in conjunction with the fever, and the great pain and tenderness of which the boy complained, it was thought probable that we had to do with a secondary inflammatory process. The chart shows that the pulse rate associated itself with the temperature, and on this day, the 21st, was 140 in the morning, 136 in the evening. When counting the pulse in the left wrist, a discoloration which appeared to be a bruise was noticed over the radial artery, and on further examination other "bruises" were found in different parts of the body.

The next day the mother was interviewed, and we obtained the following history: The boy had had diphtheria when eight months old, and this was accompanied by hæmorrhage from the nose and mouth. Subsequently it was noticed that he bruised very easily. He had had a tooth extracted shortly before his accident and bled for a week afterwards, in spite of firm plugging. During the last two or three years he had frequently had swelling in one or other knee: he would go to bed quite well and wake up in the night with pain and swelling in the joint; the last attack occurred one month before admission into hospital. There was no history of a similar affection in any near relative. The mother had had three brothers; one died from "blood-poisoning" following a stab, one died from an unknown cause, the third was alive and quite healthy; the maternal uncles had also been free from any such complaint, nor did the father's family history show any hæmophilic taint.

During the remainder of the boy's stay in the hospital the diagnosis of hæmophilia was fully confirmed; bruises appeared wherever splint pressure was exerted; for example, a Thomas' knee splint which was put on on March the 11th caused considerable effusion in the region of the groin when he was allowed to sit up; the appearance of the bruise from the pressure of the nurse's finger in taking the pulse shows in what a pronounced form the affection existed. Lastly, on April the 28th the left knee developed all the signs of a characteristic hæmophilic joint.

Union at the seat of fracture occurred satisfactorily and was not at all delayed; on the contrary, consolidation took place somewhat earlier than usual; four weeks after the accident it was firm, and measurement showed absence of any shortening.

I have thought it worth while to record this case because of the absence in the text-books of reference to the influence of hæmophilia on fractures. The points of importance seem to be :

1. The local sign, the occurrence of an enormous effusion of blood around the fracture site and the association of this with other local and constitutional signs suggesting the inflammatory nature of the effusion.

2. The fact that union took place satisfactorily and early.

The boy is at present under treatment as an out-patient for a recurrence of the effusion into the left knee. The fever which the chart shows must be looked upon as an exaggeration of the "traumatic" fever which the great majority of cases of simple fracture exhibit. The absorption of the effusion was not associated with the presence of any unusual constituent in the urine.

TWO CASES OF PTOMAINÉ POISONING.

By CHARLES MACKEY, M.B., CH.B.,

Senior Resident Medical Officer of the Manchester Children's Hospital, Pendlebury.

(By the kind permission of Dr. Henry Ashby and Dr. H. R. Hutton, physicians to the above hospital, I am able to publish the following notes.)

CASE 1.—F. C—, female, aged 6 years; admitted into hospital on April the 8th, 1904, with abdominal pain, vomiting, and diarrhœa.

Nothing important in family history or previous health of patient.

History of present illness.—Patient was quite well up to April the 4th, on which day she had been at a fair and partaken of a large quantity of ice-cream obtained from stalls there. On April the 5th she complained of abdominal pain, vomited two or three times (character of vomit not known), and had diarrhœa—stools, said to have been of a bright yellow colour at first, passing on to olive-green later, and of watery consistence. Diarrhœa and vomiting continued, and there were cramps in the legs and face. These symptoms, along with marked thirst, continued up to the time of admission.

Condition on admission.—She was a well-nourished child with marked facies hippocratica, drowsy and restless. Temperature, 98·2° F. Pulse 144, feeble and irregular.

Respiratory system.—There was a slight cough. In the left scapular region a few friction-sounds and fine crepitations were heard.

Alimentary system.—The child constantly asked for cold water and pointed to the right iliac region as being the most painful area.

The tongue showed a brownish fur, and the legs were flexed at the hips and knees. The abdominal wall was firm, tender, and retracted. There was a small nodular swelling at McBurney's spot.

Other systems were apparently normal.

Treatment.—Milk diet. Brandy ʒijs. every twenty-four hours.

R

Spiritus ammoniæ aromaticæ.	.	.	.	℥iv.
Tincturæ Nucis Vomice	.	.	.	℥iv.
Syrupii Pruni Virginianæ	.	.	.	℥xx.
Aquæ ad.	.	.	.	ʒii.

Quarta quaque hora sumendus.

Progress of case.—April the 8th, 1904, 8 p.m. Temperature 97·4 F. Patient was restless and delirious, and vomiting continued. Milk diet was discontinued and small quantities of the following were given : Valentine's meat juice, Brand's essence, and milk with soda-water. The nodule in the iliac fossa was no longer felt.

April the 9th.—The patient's condition seemed very little changed. The mixture of the previous day was discontinued and acetozone, gr. ii every fourth hour, was substituted. Two drachms of liquor strychninæ were injected subcutaneously every fourth hour. Suppositories and nutrient enemata were ordered after irrigation of the lower bowel. Diarrhœa and vomiting ceased.

April the 10th.—Patient much worse ; coma now complete ; the eyes more sunken, face more pinched in appearance. She retained small quantities of peptonized milk given at frequent intervals. Nasal feeding resorted to.

April the 11th, 2 a.m.—Radial pulse could not be felt. Fifteen minims of ether were injected subcutaneously. An attempt was made to transfuse normal saline solution into the right median cephalic vein ; but the fluid would not run. Death occurred at 5 a.m.

April the 13th.—*Autopsy* : *Brain*, medulla oblongata and membranes normal. *Heart, kidneys, spleen, pancreas*, normal in appearance. *Alimentary canal* : the serous coat of the stomach and intestines was of a pinkish colour and the vessels appeared to be very prominent. The mucous membrane was very œdematous and hyperæmic. Injection of the blood-vessels was well marked in the lower part of the ileum, in isolated patches of the jejunum, and in the iliac colon. The cæcum and vermiform appendix were normal in appearance. Peyer's patches and solitary glands were not particularly affected and were not prominent. No ulcerated surface was found.

The mesenteric glands were somewhat enlarged and appeared very congested on section. The intestines contained yellowish, viscid, sour-smelling fluid, but no solid contents. *Lungs*.—There was a small patch in the left lung, where the bronchi contained a little purulent secretion.

CASE 2.—A. C—, a female, aged $5\frac{1}{2}$ th years, was admitted into hospital on April the 27th, 1904, for vomiting and diarrhœa.

Nothing of consequence had occurred in the family history or previous health of the patient.

History of present illness.—On April the 23rd, 1904, the child complained of headache and had vomiting and diarrhœa—pale yellow offensive stools being passed. She had been “Maying” for eight hours, and so had not been under observation with regard to what she had taken to eat.

Condition on admission.—Patient was a pale, well-nourished child with face of an ashen tinge and “abdominal” expression; she complained of thirst. Pulse very weak, 156 to the minute. Temperature $97\cdot2^{\circ}$ F. She was very restless.

Alimentary system.—The tongue showed a brownish fur. The abdomen was slightly retracted and apparently painless on palpation. No enlargement of the liver or spleen could be made out, and nothing abnormal was found on palpation.

Cardio-vascular system.—The pulse was very weak and “running” 156 per minute; heart beating in embryonic fashion, but no adventitious sounds audible.

Respiratory system.—Normal.

Treatment.—Diet: small quantities of lime-water, barley-water, Benger’s food, Valentine’s meat juice, Brand’s essence, plasmon, veal tea, and brandy, were ordered.

R

Calomelanos	.	.	.	.	gr. i.
Sacchari albi	.	.	.	.	gr. iii.
Misce fiat pulvis statim sumendus.					

R

Bismuthi salicylatis	.	.	.	gr. vi.
Emulsionis petrolii	.	.	.	℥xxx.
Tincturæ belladonnæ	.	.	.	℥iiss.
Aquæ laurocerasi	.	.	.	℥xxx.
Aquæ chloroformi ad	.	.	.	℥ii.

Quarta quaque hora sumendus.

R

Injectionis hypodermicæ liquoris

strychninæ ℥iii.

Quarta quaque hora sumendus.

R

Injectionis hypodermicæ morphinæ

hydrochloratis. ℥ii statim (11.30 p.m.).

Progress of case.—April the 28th. The patient appeared worse, unconscious, and very restless. She took a fair amount of food; vomited twice; the bowels acted once during night, but not since the calomel was taken; had peculiar moaning expiration.

Examination of blood.—Red corpuscles, 6,250,000 per cmm.; white corpuscles, 11,240 per cmm.; hæmoglobin, 88 per cent.; colour index, 0.70.

Anuria since 4 p.m., April the 27th.

R

Magnesii sulphatis gr. xxx.

Sodii sulphatis gr. x.

Glycerini ʒjss.

Aquæ ad ʒjss.

Misce fiat Haustus statim sumendus.

The lower bowel was irrigated with normal saline solution.

6.30 p.m.—Still no urine passed and no distension of bladder apparent. Normal saline solution ʒxvi transfused into the right median cephalic vein, volume of pulse thereby greatly increased.

9 p.m.—Had repeated desire to urinate, but still none passed; restlessness very marked; no convulsions.

10 p.m.—Passed ʒviii urine—sp. gr. 1008; a trace of albumin; no blood.

Chloretone gr. vii were administered.

April the 29th, 4 a.m.—Urine ʒxvi passed. Patient appeared much better. She was quite conscious. Pulse 148 to the minute, of good tension and volume.

April the 30th.—Recovery from this date was uninterrupted.

May the 5th.—Examination of blood. Red corpuscles, 4,230,000 per cmm.; white corpuscles, 18,100 per cmm.; hæmoglobin, 86 per cent.; colour index, 1.01.

May the 13th.—Patient discharged from hospital, apparently in very good health.

Since writing the above notes a third case presenting similar conditions to those of the foregoing has been treated at this hospital.

VALVULAR OBSTRUCTION IN THE URETHRA OF AN INFANT, WITH SECONDARY CHANGES IN THE URINARY ORGANS.*

By C. A. MORTON, F.R.C.S.,

Professor of Surgery, University College, Bristol; Surgeon Bristol General Hospital and Bristol Royal Hospital for Sick Children and Women.

ALTHOUGH there are many specimens in museums of conditions somewhat resembling the one present in this case, clinical records of such cases seem to be rare. There is also one very important fact illustrated by this case, *i.e.* that the obstruction being valvular, with the valve sloping towards the bladder, a very serious obstacle may be present to the passage of urine, and yet a catheter may enter the bladder without the slightest difficulty.

A baby aged 13 months was sent to me at the Children's Hospital with a history of three months' wasting and vomiting, and a distended abdomen. This distension was mainly due to flatulence associated with hard scybalous masses, but a central hypogastric swelling suggesting a distended bladder was also present. The infant passed urine in apparently natural quantity, however, and I did not pass a catheter for a day or two after admission. When I did so I used a Jacques No. 3, and this entered the bladder quite easily, and withdrew several ounces of urine, and caused the hypogastric swelling to disappear. Blood and pus were noticed in the urine during the next twenty-four hours, and the temperature rose considerably. The temperature had been 101° F. and 102° F. after admission before the catheter was passed, and probably pus had also been present in the urine at that time, though I have no note of it. A large faecal mass had to be cleared out of the rectum, and also scybala higher in the bowel were removed with enemata. The infant died a week after admission. The catheter passed was boiled, and every precaution taken to prevent infection by its means, and I think there is no doubt that cystitis and pyelitis were present at the time it was used.

At the post mortem a dilated and greatly hypertrophied bladder was found; the ureters were so dilated as to resemble small intestine; and both kidneys were much enlarged from hydronephrosis, but a considerable amount of renal tissue remained. The mucous membrane of the bladder was plum coloured from hæmorrhage, and

* Read at the Provincial Meeting, Bristol, June the 18th, 1904.

had exudation of lymph on it; hæmorrhages were also present in the mucous membrane of the pelvis of each kidney, which contained purulent urine. A small valve-fold was found in the roof of the urethra just beyond the vesical orifice, directed downwards and backwards, so that although the passage of urine would be much interfered with, a catheter would not be obstructed.

Clinical Memoranda.

A CASE OF CHRONIC GRAVES' DISEASE.*

By E. CECIL WILLIAMS, B.A., M.B.CANTAB.,

Physician in charge of Out-patients, Bristol Royal Hospital for Sick Children and Women.

ABOUT eight months ago the mother noticed the child, a girl aged 12 years, was not well, and her eyes seemed more prominent. When seen five months ago at the Children's Hospital, she complained of shortness of breath on exertion. There was some prominence of the eyes. Græfe's sign not present. There was no enlargement of the thyroid gland. Pulse 160 to the minute. Slight muscular tremor. Care should always be exercised when recommending even slight operations in these patients, as it is possible to convert them into acute cases, with fatal results. A case bearing on this point was reported by me in the 'London Hospital Gazette,' May, 1903.

DUODENAL ULCER IN A CHILD FORTY-FOUR HOURS OLD.*

By H. W. KENDALL, F.R.C.S.,

Surgeon to the Bristol Royal Hospital for Sick Children and Women.

THE child was born quite healthy and of good weight. Twenty-seven hours after birth it vomited a quantity of blood, and at the same time passed blood *per anum*. It passed a little more blood a

* Exhibited at the Provincial Meeting, Bristol, June the 18th, 1904.

few hours afterwards, and was very weak. Thirty-six hours after the first vomiting it passed more blood, and died from hæmorrhage.

The mother was very healthy. The father's state of health was unknown. The child was illegitimate.

CASES OF CONGENITAL DEFORMITIES.*

By H. ELWIN HARRIS, B.A., M.B.CANTAB., F.R.C.S.,

*Surgeon to Out-patients and Surgeon in charge of the Throat, Nose, and Ear
Department of the Bristol Royal Hospital for Sick Children and Women.*

CASE 1. *Congenital absence of the left ear with facial paralysis.*—In this case there is no trace whatever of an ear upon the left side: the only change from the smooth skin in that region is a small papule, cartilaginous to the touch, with a small depression in its centre. There is and has been from birth well-marked facial paralysis.

The soft palate is distorted, the affected side being broader and higher than the other side.

CASE 2. *Congenital absence of the right external ear, excepting a partial development of the auricle.*—There is apparently some sense of hearing on that side.

In the first two or three months of her pregnancy the mother was visited by a minister who was affected in the same way.

CASE 3. *Intra-uterine amputation of three extremities; webbed fingers on the hand of the only limb.*—Both legs are absent from $1\frac{1}{2}$ inches below the hip-joint, and the left arm is removed flush with the shoulder-joint. The fingers of the remaining hand are webbed together to their tips. On the right stump is a fanciful resemblance to a very minute leg. One could trace the knee-joint, ankle, and an attempt at a foot. He did not think that any satisfactory explanation had been given of those deformities. The idea of amniotic adhesions was, he thought, insufficient to explain them.

* Exhibited at the Provincial Meeting, Bristol, June the 18th, 1904.

A CASE OF CURED HYDROCEPHALUS.*

By J. MICHELL CLARKE, M.A., M.D.CANTAB., F.R.C.P.,

Physician and Pathologist to the Bristol General Hospital.

Dr. MICHELL CLARKE showed a case of hydrocephalus in which recovery had occurred. The case came under observation at the age of eight months, and the first symptoms probably appeared at about six months. The condition in the following three or four years was very marked, the child being unable to sit up or stand. Intelligence was always very good. After this it slowly began to recover power in the limbs, and the head ceased to increase in size. Improvement had gone so far that twelve months ago suitable iron supports were fitted to the legs, and since then there has been a steady recovery of power. There are signs of partial degeneration of the pyramidal tracts in rigidity, and exaggeration of reflexes. The head measures now nearly 23 inches in circumference. The treatment was by small doses of Hydrargyrum \bar{o} Creta, continued over long periods. The case was shown on account of the rarity of recovery from such a condition.

The Society for the Study of Disease in Children.

AN Ordinary Meeting of this Society was held at No. 11, Chandos Street, Cavendish Square, London, W., on Friday, October the 21st, 1904. Dr. FLETCHER BEACH being in the chair.

The CHAIRMAN (Dr. FLETCHER BEACH) announced that he had received an advanced copy of the fourth volume of the 'Reports,' which would in due course reach each member. It was very satisfactory, and the Editor had worked harder than ever upon it. The volume was larger than previously. He also announced that a special meeting would be held in December for the purpose of discussing the question of "Sudden Death in Children."

A Boy with Hypertrophy of the Leg was shown by Dr. C. O. HAWTHORNE. The right lower limb was hypertrophied below the knee. The condition was associated with dilatation of the blood-vessels, and during the last twelve months had been attended with an obstinate process of ulceration on the front of the leg. The bulk and weight of the limb caused the boy much inconvenience, and it had been suggested that the leg should be amputated.

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That was the practical point on which he would be glad to have the opinion of the Society.

MR. ARTHUR EDMUNDS said the interest of the case seemed to depend upon the naevoid condition, and the hyperplasia was probably secondary to some increase in the vascularity of the part. He thought the papillary growths around the ulcer were due to inflammatory blocking of the lymphatics in that region. Although he believed that for ulcer of the leg amputation was too rarely performed, yet in the present case he thought the boy was too young for such a drastic measure, and the loss of a limb always greatly militated against obtaining employment. If the patient were placed under better hygienic conditions, in a hospital or some clean place, with his leg elevated, and at rest, the ulcer would probably heal. He advocated a prolonged trial of hospital treatment before amputation.

A Case of Habit Spasm was shown by DR. ROBERT HUTCHISON. The boy was ten years old. The spasm involved chiefly the muscles of the right side of the neck, but there were occasional blinking movements of the eyes also, and sometimes violent flexion of the whole head. The spasm had lasted for two years and was of unknown causation. There was no history of chorea. Another boy at the same school was said to have developed a similar spasm from "mocking" the patient. Suggestions for treatment were invited. In reply to the Chairman, he said that there was no question of imitation. Some one had suggested to him that the case might be treated by hypnotism, and he would be glad to hear the opinions of members on that point. He had tried ordinary moral suasion and suggestion, which for a time seemed to do good, but recently the condition had become worse.

DR. LEONARD GUTHRIE doubted whether the case was one of pure habit-spasm, because it had lasted so long. One was familiar with the tricks of neurotic children, but with them one trick frequently gave way to another; at one time a child would do its utmost to screw its mouth round its nose, and at another there would be a different facial spasm. Dr. Hutchison's case might probably be due to some organic disease. He had seen a case, which was not his own, of spasmodic torticollis of very many months' standing, and which was benefited by the application of galvanism to one side and faradism to the opposite side.

DR. G. A. SUTHERLAND said he had nothing to suggest in the way of treatment, but he had read in one of Dr. Cheadle's writings that in cases of habit spasm coming on between the ages of ten and fourteen years it passed off on the completion of the second dentition. Dr. Cheadle did not recommend any treatment, and his (Dr. Sutherland's) experience had agreed with that; the condition had always passed off in his cases.

DR. PORTER PARKINSON said he had seen that day a man aged sixty-five years, who had had a peculiar spasm of the left eyelid and the left side of the face ever since he was five years of age. The only muscles affected appeared to be the orbicularis oculi on one side, and some small muscles of the left side of the face. The spasm was considerably aggravated when the man became excited. He expressed no opinion as to whether the present was a case of habit spasm. He had an acquaintance, a gentleman over seventy, who had always had a similar affection, chiefly involving the muscles, which drew the mouth to one side, and accompanied by a pressing of the tongue into the cheek. In neither case had there been any cerebral or other symptoms. Thus there were certainly some cases, apparently indistinguishable from those of habit spasm, in which the spasm certainly did not pass off.

Mr. C. H. MILBURN (Hull) had suggested to Dr. Hutchison the use of hypnotism in the case because he had been told that treatment had been of no avail, and his suggestion was in the nature of a last resource. In course of conversation with the boy's mother, he asked her if there were twitchings or movements of the feet. She replied that she had not noticed any; but immediately the question was asked the boy shuffled his feet. After an interval, he asked the mother if there had been movements of the hands. She replied that none had been noticed, but in response to this question the boy twitched both hands. After another interval, he asked the mother whether there had been movements of the shoulders. She replied that she had not noticed any, but immediately the boy twitched both shoulders. That seemed to show that suggestion had an influence in producing the movements, therefore probably a counteracting suggestion might have a good effect.

A Case of Bromide Rash in an Infant was shown by Dr. ROBERT HUTCHISON. It had been treated with bromide of potassium (dose unknown) for fits for about two months. The rash was scattered over the face and outer aspects of the arms and back, and consisted of the peculiar discrete, fleshy spots which are common in bromide rashes in young children.

Dr. PARKES WEBER asked whether the kidneys were abnormal in the case, because he believed that in people who developed a bromide rash the eruption had a tendency to take a mycotic form, if there was disease in the kidneys which had been overlooked when the drug was given.

Dr. ROBERT HUTCHISON, in reply, said there was no reason to suppose that the patient had renal disease, but no examination of urine had been made to ascertain that. He would look into the matter.

Two Sisters with Congenital Hereditary Trophic Œdema were shown by Dr. O. F. F. GRÜNBAUM.*

The CHAIRMAN (Dr. FLETCHER BEACH) said he was not surprised at the reason given by the mother in the case, because after a long experience in examining histories of that kind he had found that all mothers did their best to give an explanation of any abnormality present in their children, and they were anxious to account for anything wrong by an explanation that it must have occurred after birth, feeling that a stigma attached to them if it occurred before birth.

Dr. PARKES WEBER mentioned that there was an almost identical œdema, not congenital, and certainly not of a family character, which came on at any time of life, and led to a thickening without the disagreeable roughness which was found in ordinary elephantiasis. It might be answered that the cases which occurred considerably after birth were of a different class, but he did not think there was evidence of that; they looked the same, developed similarly, and were chronic, localised, trophic œdemas. The cases might be either bilateral or unilateral; in fact, they corresponded practically in every way.

Dr. PORTER PARKINSON thought the prognosis in these cases was illustrated by the fact that the mother of such a case attended one of the hospitals in London in 1863, with a similar condition of congenital enlargement of the parts of both limbs below the knee. In spite of treatment that

* These cases will be published in full in the next number of the JOURNAL.

enlargement gradually increased, and now both her legs were of considerable size. In the case of her child, two or three months' bandaging of the legs had no effect whatever. The œdema in both the instances was hard, and did not pit on pressure. The possibility of cardiac or renal disease was negatived in the case of the mother by the duration of the condition. There was no sign of such disease in her child.

Mr. GEORGE PERNET said that the cases were extremely interesting, because the question of hereditary chronic trophœdema had caused a good deal of discussion. In the younger of the two cases there was certainly hypertrophy of the skin, but he had risen in order to draw attention to a very interesting paper by Meige, in the '*Iconographie de la Salpêtrière*.' It contained many illustrations of the disease, in cases where it spread over several generations. Meige mentioned a case recorded by Milroy, in the '*New York Medical Record*,' which affected twenty-two individuals, spreading over six generations. According to Meige, treatment in such cases appeared useless. With regard to congenital elephantiasis, which had been dealt with by many dermatologists and others, he would refer to a paper by Moncorvo, of Rio de Janeiro, in which there was a picture of a case something like the one shown at the Bristol meeting of the Society by Drs. Rogers and Fortescue-Brickdale.

Dr. C. C. HAWTHORNE said that in the paper referred to there was considerable evidence as to a distinct group of cases which could be called chronic, trophic œdema. He had no experience of the disease, but would say that the present cases corresponded with those in the paper. Whether the term "trophic" was justified or not, he thought it necessary to insist upon some specific distinguishing term, because he believed there were cases of œdema which would be simply spoken of as œdema—*i.e.* cases occasionally occurring in young children who displayed no hypertrophy of the skin or other parts, the limb being simply œdematous, the œdema going down when the limbs were raised. He believed a description was given of such cases with illustrations by Dr. Rolleston in one of the medical journals about a year ago.

Dr. GRÜNBAUM (introduced), in reply, said he had looked up the literature on the matter, and it seemed to him there were three definite conditions: one mentioned as segmental œdema, where it was not necessary for the ends of the limbs to be œdematous, and in which he believed it to be due to a segment of the cord being affected, and the nerve supply from that segment being interfered with, and leading to localised œdema. Another form was that to which Dr. Hawthorne had referred. In the case of the two sisters mentioned by Dr. Hawthorne, the œdema developed comparatively late in life, at about sixteen years of age. Dr. Batten had suggested that thyroid might be useful, and he would have liked to have heard whether it had been useful in such cases.

Mr. GEORGE PERNET remarked further that Meige pointed out that in his cases, which were rather later ones, thyroid was useless.

A Case of Cerebral Degeneration with Fundal Changes and Incomplete Ophthalmoplegia was shown by Mr. SYDNEY STEPHENSON. The boy's optic discs were pallid, and inconspicuous pigmentary changes were noticeable in the central region of each fundus oculi. Central vision was lost. Symptoms had been present for about eighteen months, and were progressing slowly. No evidence of syphilis. No blood-relationship between the lad's parents. Mr. Stephenson believed that the case was analogous to

those described recently by Batten, Still and Gunn, Mayou, Hirschberg, and Hutchison.

In reply to the Chairman (Dr. FLETCHER BEACH), Mr. STEPHENSON said the child was at present very dull.

The CHAIRMAN said he asked the question because there was a class of cases which had been described as amaurotic idiocy, and he did not know whether the present case was sufficiently dull to be looked upon as an idiot. Some cases had been described by Risien Russell before the Royal Medical and Chirurgical Society with very similar symptoms to those mentioned, and all of them ended fatally. Possibly Mr. Stephenson's case belonged to the same category.

Mr. BISHOP HARMAN (introduced) said he had a number of analogous cases to examine at the County Council Blind Schools. There were a number of cases which were blind from optic atrophy of various kinds, and there were all grades, from the degree of the present case to the grossest. It was difficult to draw a hard and fast line between those and some which would be called disseminated choroiditis. He met with two little girls some time ago who had the condition, who had been seen by a distinguished ophthalmic surgeon, who described it as disseminated choroiditis, and told the father that it was the result of hereditary syphilis. The father denied any possibility of that disease. There was no reason to suspect it having been present. Still, he (Mr. Harman) thought they were syphilitic in character, and were a very fine type of disseminated choroiditis. Whether they should be grouped absolutely alone in a little isolated patch, as Mr. Stephenson had suggested, he was not convinced, because they shaded off so well into those which no one would hesitate to call disseminated choroiditis.

Mr. STEPHENSON, in reply to the Chairman, said the two cases resembled one another in that they were family affections, but the age of the patients and the character of the ophthalmoscopic changes, and, so far as was known, the termination of the cases, differed. He passed round a picture which was published by Mr. Frederick Batten. It was interesting to hear Mr. Harman's experience, as he devoted some attention to the eyes of children, but he could not agree when he suggested that he (Mr. Stephenson) should attempt to form them into "a little isolated patch" of cases. The cases might shade off into syphilitic choroiditis, but even if they did—and he was not sure about that—he was not aware that syphilitic choroiditis was associated with mental failure and the other symptoms which characterised the patient he had exhibited that evening.

Two Cases of Encephalitis associated with Measles were shown by Dr. LEONARD GUTHRIE and Dr. J. ANDERSON SMITH (introduced).

CASE I.—Cerebral Diplegic Athetosis. This case, shown by kind permission of Dr. George Ogilvie, was that of a boy aged 6 years, who developed measles in February, 1904. On the sixth day he was seized with general convulsions with unconsciousness. He remained unconscious for seven weeks, speechless, and paralysed on the right side, with complete loss of sphincter control. At present he was rapidly regaining speech, though his utterance was very indistinct. He did not appear to be mentally deficient, and was beginning to control his sphincters. The optic discs were healthy. There was no trace of right hemiplegia, except slight weakness of the lower half of the right face. He was unable to sit or stand, and showed

in a marked degree typical athetosis affecting the trunk and all extremities. The movements were slow, forcible, hyper-extensions, hyper-rotations, flexions, etc., of the limbs opposing and alternating against each other. The fingers were widely separated and slowly flexed or extended alternately in "star-fish-like" actions. A common position of the upper extremities was strong inward rotation, with elbow hyper-extended, wrist flexed, hand pronated with palms looking outwards. Similar movements were observed in the lower extremities. The movements ceased during sleep, and were increased by attempted voluntary actions. The knee-jerks could not be elicited. There was no ankle clonus. The plantar response was usually negative, sometimes extensor.

CASE II.—Polioencephalitis (cerebellar type) occurring during Measles. This child, a girl aged 6 years, had been shown by Dr. ANDERSON SMITH in April, 1904, before the Society. In February of this year, on the third day of an attack of measles, she developed cerebral symptoms—vomiting, eclampsia, followed by strabismus, photophobia, and retraction of head. After five days the acute symptoms subsided, but the patient was aphasic, hyperæsthetic generally, and wasted rapidly. There was no optic neuritis. A month later she was still aphasic. She could not sit up in bed, and moved her limbs in ataxic fashion, and appeared to have general cutaneous anaesthesia. The limbs were slightly rigid, knee-jerks were exaggerated, and ankle clonus was present. Loss of sphincter control persisted for two months. At present the patient was quite intelligent. Speech was restored, but utterance was slow, monotonous, and scanning. Discs were normal. There was slight tremulousness and ataxy of upper extremities, and marked inco-ordination of the lower. She would not stand without support, showing tendency to fall backwards. Staggering was not increased on closure of the eyes. The gait was typical of cerebellar disease. The knee-jerks were exaggerated; ankle clonus was present at times; the plantar response was flexor, but difficult to elicit.

In remarking upon the cases Dr. Guthrie said that both were probably instances of polioencephalitis occurring during measles. In the boy's case some slight degree of congenital spasticity had doubtless been present, and the encephalitis had affected chiefly the cortical or sub-cortical motor areas of the cerebrum. In the girl's case the symptoms pointed to occurrence of cerebellar polioencephalitis. He drew attention to Dr. F. E. Batten's valuable series of cases illustrating the effects of polioencephalitis on different areas of the brain, and their relationship to anterior poliomyelitis ('Lancet,' vol. ii, December the 20th, 1902).

A Case of Infantile Paralysis, with Involvement of the Abdominal Muscles, was shown by Mr. ARTHUR EDMUNDS.

Dr. G. A. SUTHERLAND said a point which was of interest from the medical standpoint was the localised bulging under the ribs. If one had not known the history of the case, and it had only just been seen, he thought another possibility would have suggested itself, namely, that it was congenital absence of the muscular wall on that side. When the child was first seen, the whole of that side was paralysed, but under treatment by faradism and galvanism the greater part recovered nine years ago.

A Case of Double Congenital Dislocation of the Crystalline Lenses was shown by Mr. N. BISHOP HARMAN.

A Case of Congenital Cardiac Disease was shown by Dr. EDMUND CAUTLEY. The child, aged three years, was of normal size and fair nutrition, but rather anæmic. The cardiac impulse was a trifle exaggerated, but in its natural situation. The cardiac dullness was not increased to the right. A systolic thrill was felt over the second and third left intercostal spaces near the sternum. A systolic murmur was audible all over the præcordium, loudest over the thrill area. It was heard in the great vessels of the neck. Occasionally a short diastolic bruit could be heard in the second and third left intercostal spaces. In addition, the left superior rectus muscle of the eye was paralysed. Dr. Cautley suggested there might be a direct communication between the aorta and pulmonary artery, or possibly patent ductus arteriosus. He could not accept a diagnosis of pulmonary stenosis owing to absence of cyanosis, clubbing, and want of evidence of hypertrophy of the right ventricle. The possibility of a syphilitic origin was considered, as also that of more than one lesion being present.

Dr. C. W. CHAPMAN thought it was impossible to say what the condition was without an autopsy. He considered the practical point was the question between pulmonary stenosis and the lesion which Dr. Cautley had suggested, but he was rather in favour of the former.

A Case of Imbecility with Irregular Movements and Spasticity was shown by Dr. EDMUND CAUTLEY. The child was twenty-one months old, the labour was natural, and there was no evidence of congenital syphilis. She had a small head ($17\frac{1}{2}$ inches), was imbecile, dirty in her habits, had rigidity of the limbs, especially the legs, and exaggerated knee-jerks. Irregular jerky muscular movements of the hands and arms, of the trunk and lower limbs, were also seen. He considered it to be a mild case of spastic paraplegia in a microcephalic idiot.

The CHAIRMAN (Dr. FLETCHER BEACH) said he had seen several cases of the kind when he was at Darenth Asylum many years ago—children with small heads with a spastic condition of the limbs, who never practically recovered the use of their extremities; but he had not seen a case in which tremors had been so marked as in the present instance. He was inclined to think it was a case of imbecility associated with a spastic condition of the limbs, and such as was not at all uncommon.

Dr. PORTER PARKINSON saw from time to time a case of microcephalic idiocy, with considerable frontal depression, and in that case there developed certain nervous phenomena other than purely mental ones; for example, spasticity of the limbs and the rigidity is still present. There was in the case a distinct history of very prolonged labour; the child was born in a state of cyanosis, and it was with very great difficulty revived.

A Photograph of a Case of Trichotillomania was shown by Mr. GEORGE PERNET. The patient, a boy aged eleven years, when he first came under observation. The photograph was given to Mr. Pernet by Dr. Raynaud, of Algiers. The boy was in the habit of pulling out the hairs of his head and sucking them for the purpose of sexual gratification.

The CHAIRMAN (Dr. FLETCHER BEACH) said he had seen many cases apparently similar to that in the photograph, and there were a certain number of such children who pulled out their hairs. There were some cases in Darenth Asylum, who pulled out almost every hair, until they were practically bald. He had not previously heard the name now applied to the condition, but the photograph showed the case to be evidently a degenerate.

A Case of Herpes Zoster of the Left Arm extending to the Fingertips was shown by Dr. GEORGE CARPENTER. The eruption affected an extensive cutaneous area, viz. the front and back of the upper part of the chest, the arm and fore-arm in front and behind, the back of the arm, also the palm of the hand and the little, ring, and middle fingers, with a small patch at the root of the little finger on the back of the hand. The nerve roots affected were the eighth cervical and the upper three dorsal nerves. The child made an uninterrupted recovery and nothing worthy of note occurred in the case.

Mr. GEORGE PERNET said the case was one of great interest, because it was extremely rare to find herpes zoster affecting the fingers, but recently he saw a woman who had several vesicles and one bulla on the sole of the foot, the leg and thigh of whom was affected by herpes zoster.

A Paper on an Ill-developed Upper Lateral Incisor Tooth as a Forerunner of Hare-lip or Cleft Palate* was read by Mr. R. CLEMENT LUCAS.

A Paper on Two Cases of Congenital Diaphragmatic Hernia† was read by Dr. SIDNEY GILFORD.

Editorial.

INFANT MURDERERS.

A FORTNIGHT ago there occurred at New York a tragic accident, which appears to us to deserve more than the transitory consideration it has received. The facts are these: A curly-headed youngster aged two years and a half was the petted darling of his parents until a month ago, when a second arrival appeared on the scene to dispute his sway. After forbearing for a month the partial loss of attention and affection that ensued, he resolved to put an end to a state of affairs which was to him unendurable. Left alone with the baby girl one day, he seized a bronze statnette and battered in her face, causing a fracture of the skull and immediate death. A verdict to this effect was returned by the jury, and it is worthy of notice that the boy—his troubles being over—has regained his customary cheerfulness and exhibits no remorse whatever. Indeed, he constantly expresses gladness that the baby has gone.

Cases of this kind are by no means so rare as a casual newspaper reader is apt to suppose. We can remember the reporting of two

* This paper appears in the present issue of the JOURNAL, pp. 483-9.

† This paper will appear in the December number of the JOURNAL.

or three in the present year. That their occurrence is not limited to our race is revealed by a cursory examination of the foreign newspapers of the past few months. From French sources alone, for instance, we take the following examples. The 'Petit Parisien' for September the 26th reports the case of a boy of nine who lured a little girl of six to the river bank and deliberately pushed her in. She was rescued and the boy was confined to his room for three or four days as a punishment. When, however, the first opportunity for escape occurred, he did precisely the same thing with a baby girl of three, and was seen from a distance enjoying himself by gloating over his drowning victim and repulsing her feeble attempts at regaining the bank. This time he was sentenced to a reformatory, to remain there until the age of sixteen. The 'Intransigeant' describes how two Arab boys, aged ten, engaged in a fight at Tunis; one of them, mad with anger, seized a rifle and shot his adversary dead. 'Le Temps,' September the 11th, mentions the finding of the corpse of a girl of six at Le Havre. At the inquest it was discovered that death was due, not to an accident, but to a boy of eight, who had enticed her to the *digue* and pushed her into the sea. 'L'Aurore' gives an account of a drunken brawl, over some trivial question, between a boy of sixteen and a man of forty-five; the former drew a knife and stabbed the man to the heart. The 'Bonhomme Normand,' August the 26th, reports an incident at Finistère, very similar to the New York one to which we have just referred. A little girl, aged two, being very jealous of her baby brother, four months old, got a large knife and cut his throat with it. The sexes, it will be noticed, were the opposite to those in the New York tragedy.

As regards the motives for the crimes, we see that they fall into quite separate groups, and probably their pathology also does. To begin with, there are the first and last cases of our series, where the deed was due to jealousy pure and simple—the jealousy that is so common, if not constant, an occurrence under the circumstances described. The deed is so pure a reflex to the stimulation that it is difficult to see the necessity for invoking any pathological factor. In these cases the "criminal," aged two, and the victim, aged a couple of months, seem both passive agents in the scheme of things due to the family relations of our complex social arrangements; and the

only source for wonder is that such evil results do not more often accrue. The practical conclusions to be drawn are that fond young mothers should cast an occasional thought to the forsaken first-born, and should remember that when he shows marked antipathy to the babe he is sometimes capable of retaining sufficient of the primeval instincts of mankind to make short shift with the source of his woe. His age, albeit it is called the age of innocence, is no bar to such action; indeed, it is only operative in the reverse direction, inasmuch as it renders him incapable of realising the significance of his deed. Next, we have the cases in which the fury of anger is the impelling cause. The militant passions that lie dormant in our nature vary greatly, both in intensity and in the readiness with which they can be provoked in different individuals; and, seeing how frequently they are the cause of serious crime in grown-up people, it is not strange that now and then we see the same results in children. Some of the cases, no doubt, may be due to impulsive insanity, but there seems no need to call in this process to explain the acts in the majority of instances.

Lastly, we are left with a group of cases far harder to understand. In these the deed seems to be prompted by no motive whatever beyond what may be termed the enjoyment of cruelty, and here the participators must be recognised as departing much farther than in the former groups from the normal standard of mankind. We know that slight defects in mental development are apt to be associated with an attitude towards conventional morality that is called "morally defective." Whether this attitude, due to congenital defects, may be present with no other stigmata is a question that cannot be regarded as settled even yet. Be that as it may, we meet, and not infrequently, with children whose most prominent abnormal feature is such an attitude. It is only with the greatest difficulty that we can induce them to see the inconvenience of deeds that to us are heinous; many such children grow up—and, indeed, form a great part of our criminal classes—simply incapable of realising the wrongness of deeds of cruelty, murder, and similar acts. The orthodox view taken by demagogues is that such children are either over-endowed with original sin or under-endowed with the grace that should enable them to perceive the innate and fundamental wickedness of such pro-

ceedings. Perhaps these children might be also explained on the view that they are the subjects of atavism, that natural selection has not been thorough enough with their ancestors. The result is that their social instinct, that instinct that compels ready obedience to the universal laws of mankind, remains so undeveloped that it needs a more coercive environment than is customary. Certain it is that many children delight in performing cruel acts—maiming kittens, crushing flies, and so on—and that it is very common to find such propensities in the different varieties of imbeciles and idiots. Of the children who present no other abnormal trait, most can be educated to look upon such acts with positive repulsion, but whether the ultimate standard of altruism is as high amongst such children as amongst normal children has not yet been ascertained. We certainly do not agree with the view advanced at a recent meeting of the National Association for the Feeble-Minded—to wit, that such symptoms indicate incipient insanity, for in our experience the prognosis in these cases is usually good, provided there be no other evidence of mental deterioration. All gradations can be traced between slight “naughtinesses,” such as a fondness for pulling the cat’s tail, and the worst forms of cruelty resulting in such an atrocious deed as that reported in the ‘Petit Parisien.’ The deductions to be drawn are obvious—namely, that there is far more danger than is popularly supposed in the potentialities of certain naughty children; and that, therefore, greater care should be taken from a prophylactic point of view as regards their relations with other children.

Excerpta Puerilia.

The case of Poor-law children’s teeth—the multifarious duties of a general practitioner.—From the report of a meeting of the Dorking Board of Guardians it appears that they expect the workhouse medical officer to stop the children’s teeth. We rub our eyes and wonder as we read if we are in the twentieth century. The medical officer recommended some of the children

being sent to a dentist to have their teeth stopped or extracted, a guardian immediately moves that the doctor's recommendation be not entertained, a resolution which is apparently carried *nemine contradicente*, and "the medical officer is requested forthwith to do all that is necessary."

A state of intelligence such as is indicated by this resolution is apparently not uncommon or special to a Board of Guardians, as only a day or two ago the Principal of a high-class Preparatory School, an M.A. of Oxford, did not think it necessary that boys should wash their teeth before going to bed ! Penrith is, however, alive to its duties ; for the Guardians, on the recommendation of their Medical Officer, have decided to engage the services of a dentist to attend to the teeth of the children in the Workhouse. One member, however, voted against the resolution on the ground that he had had his teeth for eighty years without requiring the attention of a dentist.

It would appear that medical men cannot too often impress upon the British public that children's teeth require the skilled care and attention of a dentist at periodical intervals, and that an important factor in keeping children in good health is the proper conservation of their teeth. Poor-law guardians especially it would seem important to educate up to the fact that general practitioners have not usually had the training, nor do they possess the apparatus, "to do all that is necessary."

We commend to the guardians' perusal a "circular on the care of Poor-law children's teeth" which was issued some eight years ago by the Local Government Board, and that they should act on the advice contained in this circular rather than on the strict interpretation of Poor-law consolidated orders on to which the Chairman of the Dorking Board apparently pinned his faith. Admirable as these orders are if construed in the spirit in which they were framed, they become unmitigated red tape where children are concerned if acted upon in the strict letter.

Canal-boat children.—Mr. Llewellyn, Inspector under the Canal Boats Acts, gives an interesting fact in relation to canal-boat children. As it is sometimes said that there are 60,000 boat people on the inland waterways of England, and that 30,000 children are being brought up without any education whatever, he thinks it right to state that, although it is impossible to gauge the exact number, there are, in his opinion, not more than 400 children of school age in England and Wales who have no other homes than the

boats they live in. He estimates that the number of boats used as dwellings is under 7,000.

Boarding out of pauper children.—During the year 1903-04 the Local Government Board authorised eight new committees for the purpose of finding and superintending homes for orphans or deserted pauper children. Three of these committees were authorised to act only in regard to boarding children within the limits of the union to which they were chargeable. The remaining five were empowered to act in respect of children outside the union liable for their maintenance.

The Reports are given of Miss Mason, Miss Pell, and Miss Evans, inspectors of children boarded out beyond the limits of the unions to which they are chargeable, with reference to the working of the system and the children inspected by them. The responsibility for the care of the children boarded out rests entirely with the boarding out committees. The inspections of the children are for the purpose of ascertaining how the duties of the committees are discharged, and cannot be regarded as in any way relieving the committees of their responsibility.

Miss Mason, the senior inspector, states that her experience confirms that of former years—that the boarding out system is either the best or worst according to the manner in which it is administered, and that it continues to improve in the district she visits. The system has not extended as might be desired on account of the insufficiency of good committees, homes, and foster-parents. The main reason why committees do not multiply more rapidly are—the absence of any agency to find, start, or enlist them, the necessity for the advance by the committee of a part of the payments to the foster-parents, and the complaint that the present rate of remuneration to foster-parents (4s. a week and £2 a year for clothing) is insufficient.

Other reasons are the trouble and difficulty of finding employment for the children when of age for service, and keeping them employed, and the insufficiency of cottage accommodation in the country. The children boarded out within the union have increased considerably, and have filled up a large proportion of the homes which might have been available for boarding out children beyond the union.

Boarding out within the union is, in a great measure, only a form of outdoor relief, and it appears to have increased with the recent general increase of pauperism (in actual number, not in relation to population). It is a system (says Miss Mason) which extends

automatically ; for many persons who might maintain children related to them, but for whom they are not legally responsible, will not do so if they see that their neighbours receive parish pay for children under similar circumstances. Also, though there are now about 107 committees within the union for which they act, there is no official inspection to report on and help their work ; while the rest of the children are only under the supervision of the relieving and medical officers, who cannot make that thorough inspection of the homes and bodily condition of the children which a woman can. It is therefore probable that many of the homes are accepted in ignorance of what the treatment of the children really is, and that many of the foster-parents would decline to receive them at the low rates of payment often given if official investigation were made into the nature of that treatment and their expenditure of those payments.

The number of children permanently boarded out by voluntary agencies has not to any appreciable extent filled up homes where children might have been boarded out beyond the union. But the boarding out of the various "country holiday" agencies has increased so enormously of late years that it has distinctly limited the field. These agencies now send children to the country, not only from London, but from most of the large provincial towns. It would be interesting, but impossible, to ascertain how many thousands are sent out in one year, for much of this kind of boarding out is carried on by charitable individuals as well as by societies. The children are sent out for a fortnight each, and usually to the same houses in succession during the whole of the summer. The cottagers prefer them to permanent Poor Law children for many reasons : (1) 5s. a week per child is paid for maintenance alone—the cottagers have not to provide their clothing ; (2) each child remains only for a short time, and is very little tie, responsibility, or trouble, since the very object of sending them out is to let them run free in the country air, and in the summer only. They are mere lodgers, and no "undertaking" is required of the cottagers as to their treatment or training. (3) Nor do all the agencies enforce rules as to overcrowding, or the numbers to be placed together. Not long ago four sleeping in a row were found in one bed, in a house where a Poor Law child was boarded out.

Abstracts from Current Literature.

Medicine.

Epidemic of infantile paralysis ('*La Pediat.*,' June, 1904).—**E. Lorenzelli** describes an epidemic at the Children's Hospital at Parma during the first half of 1903, when twenty-six cases occurred, while in the corresponding periods of 1901 and 1902 only three and seven cases occurred. The cases all came from a limited but healthy area, partly rural and partly urban. The ages of the children were—from birth to 6 months, one case; from 6 to 12 months, four cases; from 1 to 2 years, nine cases; from 2 to 3 years, three cases; from 3 to 4 years, six cases; from 4 to 5 years, two cases; and at 8 years, one case—the majority of cases thus occurring about the second year and in the warmest month of the year. No hereditary influence could be traced either in nervous affections, gout, or tuberculosis; no relation was observed with dentition. In only one case, that of a child bathed in cold water while perspiring, was any connection with cold ascertained. With regard to its relation to gonorrhœa brought into prominence by Hayem, Parmentier, and Dufour, none such was discovered. In only seven cases was any co-existing malady noticed, such as gastro-enteritis, worms, etc.; the other nineteen had been and were perfectly healthy. The initial fever was—in one case, 1 night only; in seven cases, 2 days; in five cases, 3 days; in three cases, 4 days; in two cases, 5 days; in the remaining eight it was not possible to gauge the duration of the fever, but it was not longer than 38 days. In all cases but one paralysis was noticed on the cessation of the fever. Initial disorders of digestion were infrequent and insignificant; vomiting was observed in only four cases, diarrhœa in three cases, and constipation in three cases. Of other symptoms, pains in the limbs (frequent in adult poliomyelitis) existed in five cases, always in those limbs subsequently paralysed; neck rigidity, which, according to Gowers, depends on a slight meningitis in relation with the medullary affection, only existed in one case; cutaneous anæsthesia, either dependent on an unusual diffusion of the process to the sensitive area of the cord or to lowered temperature and deficient circulation and nutrition of the paralysed part, was noticed only in one case, and profuse general sweating in one case. It is noteworthy that in no cases were convulsions noticed as an initial symptom, since it is generally admitted that they are a frequent phenomenon.

VINCENT DICKINSON.

Myokynia in acute polioencephalomyelitis ('*Société de Neuropathologie de Moscou*,' February 21, 1903; '*Arch. de Neurologie*,' vol. XVIII, No. 104, p. 170).—**N. Delektorsky** describes the case of a boy of fifteen, who, in June, 1902, had a feverish illness for a few days, which left him paralysed in all four limbs. Later the movements came back, except in the upper part of the trunk on both sides and in the right arm, where an atrophic paralysis remained. During this improvement involuntary muscular twitchings appeared, as did paralysis of the lower and middle parts of the right facial nerve, and partial nerve deafness on the right side. He came to hospital six months after the onset, and then showed the above phenomena. In addition, the deep reflexes were increased in both legs and the left arm;

there was no sensory affection. Complete reaction of degeneration was present in the biceps, deltoid, and brachialis on the right side, with marked diminution of excitability in the other muscles. The twitchings in the neck, tongue, and face were very rapid and incessant; from time to time also appeared tetanic spasms of isolated fibres lasting for some seconds. In the other muscles the twitchings were slower, spread from one muscle bundle to another, and invaded the whole muscle. In the thighs ordinary fibrillary tremors were present. The movements continued during sleep. The twitchings conform to the description of myokymia given by Schultze, and Delek-torsky thinks that they depend on an irritation of the anterior horn-cells.

A. ERNEST JONES.

Case of progressive myopathy with sensory changes (*Nouvelle Iconographie de la Salpêtrière*, No. 2, 1903).—**Laimon** and **Porot** describe such a case, the only one in the family. The onset was at the age of ten, with lancinating pains and paresis, leading later to generalised atrophy, with pseudo-hypertrophy in the lower limbs, abolition of tendon reflexes, and electrical excitability. There was cutaneous hyperæsthesia, which seems to put the case into the "mixed" group of myopathies.

A. ERNEST JONES.

Tibial deformity in congenital tabes (*Nouvelle Iconographie de la Salpêtrière*, 1903; *Arch. de Neurologie*, July, 1904, p. 57).—**Sabrazès** reports a case of tabes due to hereditary syphilis, with an enormous deformity of the tibia like to a sword's scabbard. It is the first such case to be recorded.

A. ERNEST JONES.

A new physical sign of rickets (*Wien. klin. Woch.*, June 4, 1903; *Rev. Mens. des Mal. de l'Enf.*, June, 1904, p. 284).—**R. Neurath** claims that rickets can readily be diagnosed by an examination of the hand owing to the existence of a peculiar deformity in the skeleton of the fingers. The second phalanx is hypertrophied, whilst the other two are normal, and thus form a contrast. The enlargement is chiefly on the dorsal surface, so that the deformity is best seen by looking at the hand in profile. At the level of the enlargement the skin, though normal in itself, appears stretched, and is thrown into folds only with difficulty. More rarely another deformity is present; then the first and second phalanges form a cone, whilst there is a dorso-palmar thickening of the third phalanx, so that the finger looks like a thin skittle. Occasionally the terminal phalanx has a drum-stick appearance. Radiography shows that the enlargement is due to a periosteal thickening.

These changes are commonest in the first year of life and only occur after that age in severe cases. One can hardly confound the deformity with the phalangitis of hereditary syphilis, which chiefly affects the ungual phalanx, giving it the appearance of a truncated cone; in rickets it is the whole finger that is affected, becoming fusiform. The changes disappear under anti-rhachitic treatment. Most authorities—such as Kassowitz and Monti—state that digital changes in rickets only occur in the severest cases, and so are rare.

A. ERNEST JONES.

Uncomplicated myocarditis in a girl in her eighth year (*Lancet*, October 1, 1904, p. 947).—**George Carpenter** gives the history of a child whom he admitted cyanosed into hospital with the signs of heart failure.

Her pulse was weak at the wrist and the first heart sound was not good. There was no extension of cardiac dulness to the right and no regurgitant pulse in the vessels of the neck. A few bronchitic signs were to be heard in the chest. The patellar reflexes could not be obtained, and the soft palate acted, but not freely. Her urine was nearly solid, with albumin. The temperature was 97.8° F. The diagnosis made was myocarditis. She died the following day. Autopsy showed that the cardiac valves were healthy. The right side of the heart was somewhat dilated. The heart muscle was extremely pale and friable. All the cavities were filled with blood-clots. Stained by Marchi's method, scattered areas of fatty degeneration of the cardiac muscle were demonstrated in all parts, but were chiefly noticeable in the left ventricle. The lungs were heavy and dropsical. The liver was pale. The kidneys were pale. Microscopically pigment granules of golden-yellow to black colour were found in certain areas either incorporated with the cells of the tubules or lying on the surface. The straight tubules of the kidney



Microscopic section of the left ventricle, showing fatty degeneration of the muscle (stained Marchi). Longitudinal striation of the muscle-fibres is pronounced, but cross striation where present is but faintly indicated.

contained old and shrivelled red-blood cells, forming casts there and filling many of them. The spleen and pancreas were normal. The mucous membrane of the stomach was congested and it contained a little altered blood. Carpenter calls attention to the fact that, in Vol. III of the 'Reports of the Society for the Study of Disease in Children,' pp. 170-181, and the paper which was read before the Society and published in full in 'The Lancet' of May 30, 1903, p. 1508, he drew attention in this country, under the heading of "Uncomplicated Myocarditis in Children," to the occasional occurrence of clinical examples of primary degeneration of the heart muscle in the young with all the symptoms of valvular disease and without endocarditis, of which the case quoted is an example. Long prior to this, in 1896, he had called attention to the condition in America ("Two Fatal Cases of Heart Disease in which the Cardiac Muscle was alone involved," 'Pediatrics,' vol. ii, pp. 234-238). In his other cases one, post-diphtheritic, whose cardiac symptoms were much like those of the child under discussion, recovered. Another of unknown

causation died and interstitial myocarditis was found post mortem. A third, of rheumatic origin, died suddenly and fatty degeneration of the heart muscle was found. A fourth, a boy, aged 12 months, showed extensive fibroid disease of the heart. The child died suddenly and general tuberculosis was found at the necropsy. The cause of the heart disease was not obvious and possibly rheumatism was responsible. There was no evidence of syphilis. In the present example the cause for the fatty degeneration of the heart was not certain, but he was inclined to the view that it was post-diphtheritic; at least, that appeared to him to be the most likely solution. He claimed for myocarditis, including in this term cases of fatty degeneration of the muscle-fibres pure and simple, a distinct clinical entity. He used the term "myocarditis" with intent, and not because he wished it to be understood that he considered there was anything about the condition of an inflammatory nature. For one reason it is customary at the present time in text-books on children's diseases to group such conditions under the heading Myocarditis, but he used the term chiefly because he wished the case to appear as an addendum to his recent communication on myocarditis in children. The disorder in a pronounced case, in the absence of complaints known to produce it, can be diagnosed during life; and it is a state, dangerous though it be, from which recovery can and does take place, even in a severe case, as he had more than once observed. The incidence of cardiac symptoms in association with diphtheria, influenza, scarlet fever, rheumatism, or sepsis, etc. facilitated the diagnosis. Myocarditis is likely to be overlooked in cases where the primary disorders which produce the complaint have passed unnoticed, as is very likely to occur and as a matter of fact frequently does happen, and when the patient first comes under observation as a case of heart disease, especially if the condition sometimes chances to be associated with cardiac bruits independent of valvular lesions. Of cases of temporary cardiac invalidism there must be many examples which escape detection. Now that attention is drawn to the condition it is hoped that it may bring forth valuable observations in the future on an important subject which needs further and more extended investigation.

THEODORE FISHER (Bristol).

Estimation of proteid in human milk (*Journ. of Obstetrics and Gynaecology of the British Empire*, April, 1904, p. 344).—**Sikes** recommends the follow process: "1 c.c. (or better 1 gramme) of milk is put into the glass tube of a centrifugal machine; to this 14 c.c. of absolute alcohol is added, and enough dilute acetic acid to render it faintly acid; it is then heated in a water bath till it begins to boil, then rapidly centrifugalised, the supernatant liquid (if it be not quite clear) poured off through a small, good filter-paper (this filtrate, as it cools, gives a whitish deposit of fatty substances, and the solution contains nearly all the sugar); 14 c.c. of alcohol is again added, shaken up, boiled, centrifugalised, and the supernatant liquid filtered, if necessary, as before; this is then repeated a third time; finally, any traces of proteid in the filter-paper are washed off with some hot absolute alcohol, mixed with the precipitate, which is then transferred to a platinum capsule, evaporated over a water bath, and dried at 100° F., weighed, and the residue incinerated; the weight of capsule plus ash deducted from the weight of capsule plus proteid, etc., gives the amount of proteid present in the quantity of milk taken." The results of fourteen consecutive estimations made on the third and the twelfth day after confinement were: maximum 2.95 on ninth day; minimum 1.20 on eighth day;

average 1.84 per cent. Taking the specific gravity of the milk at 1030, the corrected average is 1.79 per cent. The process takes less than an hour. The necessary apparatus consists of a balance, centrifugal machine, water bath, and drying oven. It can be used for the estimation of albumin in urine.

EDMUND CAUTLEY.

Congenital word-blindness (*'Lancet,'* September 17, 1904; *'La Clinique Infantile,'* October, 1904).—**Sydney Stephenson** reports two cases of this condition, which he considers is not so rare as has been suggested, though many may escape observation. The first was in a boy, aged 9 years, who had considerable difficulty in spelling and writing, though he was exceptionally intelligent in other matters. After special education the power of reading improved, and he was even able to spell Latin words; unfortunately, he died at the age of 14. The second case was more severe in type; it affected a boy, aged 10 years, who showed other nervous symptoms, especially spasmodic movements of the face and neck. He was able to read, but with great difficulty, and could not read his own writing with any fluency. He could not copy a printed page, but was gifted with a very retentive memory of what was said to him. In both these cases the parents and relations were healthy and intelligent in all respects. The vision of the patients was normal. The general prognosis of these cases is a slow improvement with careful training.

J. PORTER PARKINSON.

On the abuse of milk in the chronic gastro-intestinal disorders of children after weaning (*'Gazette des Hôpitaux,'* 1904, p. 129).

Billon has a suggestive article on this subject. He thinks that a strict milk diet often does more harm than good in these cases. The milk coagulates in the stomach and finally reaches the colon imperfectly digested setting up acute colitis. This is more common in well-cared-for children than in the poor. **Bipart** (*'Jour. de Paris,'* 1903) says that these patients present three clinical types, which may merge into each other. In the first the child suffers from chronic gastro-enteritis with constipation. The stools are hard scybalous, and covered with mucus. Evacuation is extremely painful, and there is a tendency to the production of hæmorrhoids, prolapse of the rectum, and fissure of the anus; there may be spurious diarrhoea. The child is anæmic, the limbs wasted, the complexion earthy, the abdomen soft, though full. The stomach is distended by gas, the liver is large. A cord-like mass is felt in the upper part of the descending colon. The urine contains indican and often albumin. The red corpuscles are diminished to 2,000,000 per cmm. The second type begins as acute enteritis, with green diarrhoea, the stools containing coagulated particles of undigested milk. If neglected, or if treated by milk diet, the enteritis becomes chronic, with mucus in the stools. The abdomen is distended and tender. This is soon followed by constipation. The last type presents the picture of acute gastro-enteritis. If milk diet is given, vomiting continues, the breath is fetid, "with a butyric odour." Convulsions may occur. *Treatment*.—(1) In the acute stage, for twenty-four hours give water only. Then give farinaceous soups and diuretic drinks; after a time soups made with fresh meat. (2) In the chronic stage two principles should be kept in view: to check the diarrhoea, and to prevent intestinal decomposition. If the child has only just been weaned, let it return to the breast. Otherwise give soups made with boiled or sterilised milk. Kifir may also be used. Food should not be given more than four times in the twenty-four hours. General hygienic

measures should also be attended to. The results of this treatment are said to be good. The pathology of the condition is fully discussed, and also the curative action of the foods recommended.

S. H. BOWEN.

Surgery.

Gonorrhœal arthritis secondary to conjunctivitis in a new-born child (*Riv. di Clin. Ped.*, June, 1904).—**C. Comba.** The mother, a primipara, was affected with an abundant muco-purulent genital discharge, and the infant during the first days of birth had an intense conjunctivitis, and on account of the puerperal fever of the mother was nourished by sterilised cow's milk, and subsequently by a wet-nurse. It did not thrive, and developed swellings of the right wrist and knee and of the left elbow, which were tender but not reddened. On admission to the clinic when 37 days old, gonococci were detected in the conjunctival secretion, and the right knee, which fluctuated, was twice punctured, but only on the second occasion was one example of the gonococcus detected in the milky, glutinous fluid drawn off. Solution of protargol 1 per cent. was used for the eyes, and injection of a 10 per cent. oily solution of methyl salicylate to the joints. Cure resulted in a month. The author thinks that the scarcity of gonococci in the joint is attributable to the length of time elapsed since the first infection.

VINCENT DICKINSON.

Diphtheritic stenosis of larynx in children under 2 years and a proposal for a different method of treatment (*Riv. di Clin. Pediat.*, July, 1904).—**D. Pacchioni** considers that in the first year of life especially the mortality of tracheotomy is greater than that of intubation, but at this age also the mortality of intubation is much more than in older children, chiefly from pneumonia and laryngeal ulceration. His idea was to leave the tube in the larynx for as short a time sufficient to clear the respiratory track from membrane and to overcome spasm, so as to diminish as far as possible the danger of pneumonia and ulceration of the larynx. Asphyxia in these cases being due either to the presence of membrane, spasm of the glottis, or swelling of the mucous membrane, intubation provides a means of counteracting them even by a brief stay of the tube in the larynx. The author tried the effect of a few hours of intubation in order to minimise as much as possible the consequences arising from a protracted stay of the tube in the larynx. As a criterion for the duration of the intubation he looked to the quantity of membrane or mucus expelled and the more or less easy manner of breathing after the operation. In those cases where little membrane was expelled he left the tube in two to four hours, when there was less satisfactory result, six to ten hours. These short intubations enabled the nourishment of the child to be partially suspended during that period, so limiting one of the causes of pneumonia, only small pieces of ice or a teaspoon of water occasionally being given. O'Dwyer's new model in ebonite was used with a thread attached and the patients were kept under the influence of bromide and serum; therapy resorted to freely. Short and repeated intubations do not exclude the necessity for tracheotomy to which the author resorts if after three or four days of short intubations the child still has attacks of asphyxia, or as soon as the tube gives the least evidence of commencing ulceration. His results were of 37 cases: intubation 19, cases with 3 deaths and 15 recoveries; secondary tracheotomy, 18 cases with 7 deaths and 11 recoveries.

VINCENT DICKINSON.

Cases of macrodactyly ('*Nouvelle Iconographie de la Salpêtrière*, No. 1, 1903).—**Félix Lejars** reports the case of a girl aged thirteen in whom the middle finger of the left hand was large at birth and grew out of all proportion to the other fingers. It was 15 cm. long and 12 in circumference. It so impeded the use of the hand that he amputated through the metacarpal bone. **Cayla** ('*Nouvelle Iconographie de la Salpêtrière*, No. 1, 1903) also reports a case of macrodactyly in a boy of seventeen. All the right upper limb was hypertrophied, but more especially the three outer fingers. Other stigmata were present, e.g. facial asymmetry, strabismus, high-arched palate.

A. ERNEST JONES.

Double ablepharon ('*Indian Medical Gazette*, March, 1904, p. 93).—**E. H. R. Newman** reports the rare case of a Hindoo male infant, aged one year, who presented no trace or suggestion of a palpebral fissure on either side. Eyebrows and nasal bones were poorly developed, and the face presented an extraordinary mask-like appearance. The child could distinguish between light and darkness. On operating a very rudimentary trace of a conjunctival sac was found at the lower and outer part. The cornea presented an opaque ground-glass appearance; its curvature was irregular and bulging. No trace of lachrymal apparatus was found. The cornea ulcerated and eventually sloughed, the wound contracting and leaving a granulating sore. No operation was attempted on the left eye. In this case no true eyelids existed at all.

EDMUND CAUTLEY.

Pneumococcic peritonitis in children ('*Med. Rec.*, Feb. 13th, 1904). [*Absts. from 'Rivista de Clinica Pediatrica' Dec., 1903*].—**Francisco Gaité** comes to the following conclusions with regards to pneumococcic peritonitis: (1) It is most common in childhood; (2) the female sex is more predisposed to the disease; (3) there are various pathogenic variations of the disease: the primary seat of inoculation may be in the intestines, pleura, female genital tract, and probably also may spread from the blood; (4) the prognosis is good when a localised infection of the peritoneum is treated rarely by operation. In cases of diffused peritoneal infection the prognosis is doubtful.

P. LOCKHART MUMMEY.

Hernia in young children ('*Med. Record*, February 13, 1904).—**W. B. de Garmo** of New York. In discussing this question the author points out the interesting fact that hernia in infants is much more frequently associated with gastro-intestinal disturbances than is the case with adults. He points out that infant gastro-intestinal troubles frequently disappear as soon as an existing hernia has been properly retained. He favours the treatment by trusses, and states that the majority of hernias in infants can be cured by truss treatment alone. This is contrary to the experiences of most other surgeons, and does not take into account the possibility of hernia developing again later on in life. He considers the operation very safe and entirely satisfactory, and gives the following indications for operating: (1) Strangulation; (2) all cases not controlled by a truss; (3) occasional protrusion with threatened strangulation; (4) when wearing the truss causes pain; (5) children that cannot be brought regularly for attention; (6) in all cases of femoral hernia; (7) in all cases of children over 7 years. With regard to the age at which operation should be performed no age limit is given. The record for operating for hernia at an early age would certainly seem to have been reached by a surgeon quoted by Dr. de Garmo, who

operated on a child for hernia two weeks before the normal termination of intra-uterine life, the child having been born at the eighth month.

P. LOCKHART MUMMERY.

The operative treatment of hernia in infants and young children (*Brit. Med. Journ.*, Oct. 1st, 1904). — **Harold J. Stiles.** In discussing the vexed question of operation *versus* truss treatment for the cure of hernia in children, Mr. Stiles, after an experience of 360 cases, strongly advocates operative treatment in all cases. He emphatically corroborates the opinion already expressed by other writers upon this subject, that even when the truss treatment is successful in getting rid of the hernia, it leaves an unobliterated sac which frequently results in a recurrence of the hernia later on in life. He quotes Coley's statistics to show that in one third of all cases of hernia in adults there is a history of hernia in infancy. The operation which he performs is similar to that originally described by Sir Mitchell Banks. He advocates sewing up the ring by a single catgut suture. In children up to the age of three he advocates a rather novel form of after-treatment. No dressing is applied to the wound at all, but it is left exposed and merely dusted with boracic acid. The child is fixed down in the bed, and a wire cage is placed over the lower part of the body to prevent any of the clothes coming into contact with the wound. He speaks very highly of this form of after-treatment in infants, and says that since adopting it he has come to consider the operative treatment of hernia as less trouble than a circumcision. In discussing the frequency of strangulation in infants, he says that of the whole 360 cases it was present or threatening in 8.3 per cent. He gives a most necessary and emphatic warning against the use of taxis in dealing with cases of strangulated hernia in infants. Mr. Stiles found the cecum in the sac of the hernia in 7 per cent. of his cases, and he believes that this variety of hernia is more liable than others to become irreducible. He advises removing the appendix when it presents as a precautionary measure against future trouble. He records a mortality of 1.4 per cent. or five deaths. Of these, previous taxis resulting in damage to the bowel appeared to be the cause of death in three cases. One child died under the anæsthetic, and one from sepsis. With regard to the age at which the operation should be performed, Mr. Stiles does not think the age is of much consequence, but he prefers to operate at about the age of six months.

P. LOCKHART MUMMERY.

Report on two children operated upon by Lorenz (*Med. Record*, March 5, 1904; from *Journ. of Amer. Med. Assoc.*, February 27, 1904). — **H. M. Sherman.** In one of the cases the thigh was flexed upon the pelvis and abducted till it lay in the frontal plane of the body. No rotation of the limb was apparent. The leg was flexed on the thigh and could not be extended. The limb was, in fact, in the same position as when originally put up in plaster by Lorenz himself. The condition of the limb was not favourable to stable support, and the child had to be re-operated upon to allow it to walk. The head of the femur was in a subcutaneous position in the outer part of Scarpa's triangle and was not in the normal relation to the acetabulum. In the second case the head was also in the outer part of Scarpa's triangle and subcutaneous. The child could not walk after removal of the splint, though it had been able to do so previously. Mr. Sherman did not consider that Lorenz had in any way benefited these cases.

P. LOCKHART MUMMERY.

Otology, Rhinology, and Laryngology.

Scarlatinal panotitis; exfoliation of a portion of the labyrinth; radical operation (*Med. Rec., January, 1904; 'Journ. of Laryngol.,' etc., September, 1904*).—**C. Koller** reports the case of a female child, aged 4 years, who was taken suddenly ill with vomiting and fever; the vomiting lasted three days. A scarlet fever rash developed fully, and was followed by diphtheria. On the eighth day of the illness deafness and otalgia on both sides were noticed, and were followed by profuse aural discharge. At the end of four weeks, when the child was allowed up, staggering was observed. Two months after the illness she was admitted into the hospital. There were granulations in the tympanic cavities, and bare bone was noticed on the left side. A radical operation was performed on this ear; the antrum and other cavities were found full of granulation tissue and pus. A loose sequestrum was removed; it was found to consist of the superior and external ampullæ, and parts of the superior and external semicircular canals. A second sequestrum was also removed, consisting of part of the annulus tympanicus. The child made a good recovery, but did not regain the hearing on this side.

RICHARD LAKE

Two cases of cerebral abscess, due to ear disease (*Journ. of Laryngol., September, 1904*).—**De Greift** reports these cases, the first of which was that of a child, aged 12 years, who had suffered with an otorrhœa of four years' standing. The child was attacked with sudden pain in the affected side. This was soon followed by fever, together with brain disturbance. On opening the antrum, the roof of the tympanum was found to be carious, and a large cerebral abscess was opened and drained. A second abscess was found a few days later, and also treated surgically. Recovery was complete. The second case was that of a child, aged 13 years, with purulent otitis media, which had been neglected. Later facial paralysis and pain ensued. A large cerebral abscess was found at the time of operation, which it was believed was connected with the lateral ventricle. Recovery was complicated by the formation of a large hernia cerebri, but was eventually complete.

RICHARD LAKE

A case of temporo-sphenoidal abscess operated upon seventeen years ago (*Journ. of Laryngol., September, 1904*).—**T. Barr** presented a case at the Otological Society of great Britain of a man, aged 27 years, who came under his care in January, 1887. The patient was then 10 years of age, and presented all the classical symptoms of temporo-sphenoidal abscess on the right side. Prof. Macewen operated on the boy, opening and draining a large temporosphenoidal abscess, and the case was reported in March, 1887, in the *'Lancet.'* The patient is now married, and has two healthy children.

RICHARD LAKE

Naso-labial eczema (*Archives de Laryngol., d'Otologie, et de Rhinologie, May and June, 1904*).—**Sota y Lastra**. This author states that this affection is most common in children between the ages of 6 and 10 years, and boys of from 13 to 15 years. It also occurs fairly frequently in females aged 17 years and upwards. He says that sufferers from this malady usually exhibit the scrofulous type of beauty—that is, an elegant figure, oval face, rosy complexion, large and expressive eyes, long eyelashes, abun-

dant eyebrows, with fine and glossy hair. He describes with great minuteness the course of the disease and its pathology. He says that patients are rarely seen early, but usually not until the disease has existed for some time. He divides the affection into three stages, common to all forms of eczema. The prognosis is very favourable if the treatment adopted is suitable. Occasionally granulation tissue will appear at the entrance to the nose, and must be removed, and sometimes, when the disease has existed for some years, it may simulate rhinoscleroma. It is also liable at an early stage to be confused with labial herpes, but the vesicles in eczema are very small compared with those of herpes. As regards the treatment, the author says that it is necessary to attend carefully to the dietary. The nourishment should be frugal: the patient should abstain from highly seasoned foods and irritating substances, alcoholic drinks, nuts, strawberries, green fruits, and other indigestible aliments. In order to combat the gastro-intestinal catarrh which is usually present laxatives should be ordered from time to time. The mouth should be cleansed with a boric acid mouth-wash: the lips should be sponged with a solution of 1 in 1000 corrosive sublimate and tampons of cotton-wool soaked in boracic solution. The crusts should not be forcibly removed, but allowed to fall off naturally. When this occurs, the surface is dressed with coal-tar powder. In a very chronic case the author uses the following ointment: Cacao-butter, 4 grm.; oil of sweet almonds, 1 grm.; tartaric acid, 0.35-0.30 grm. If fissures appear during the course of healing, they should be touched with nitrate of silver, or a 30 per cent. solution of chloride of zinc. If the eczema becomes impetiginous, and the ulcerations become covered with granulation tissue, a concentrated solution of chloride of zinc is applied, after a slight scarification.

RICHARD LAKE.

Softening (breaking down?) of a cicatrix over the mastoid in the course of scarlet fever (*Archives de Laryngol., d'Otologie, et de Rhinologie*, May and June, 1904).—A. Trifiletti describes the case of a child aged 8 years, with an abnormal development of the bony system. Until April, 1903, he had never had any serious illness. He then had an attack of acute left otitis media, which was followed by mastoiditis, with oedema in the region of the mastoid. As all attempts to control the disease were unsuccessful, the mastoid was opened. Nothing very remarkable was discovered at the time of operation. Complete healing resulted in about a month's time; the hearing was quite normal, and only a linear cicatrix was visible. Seven months later—that is to say, in January, 1904—the little patient had scarlet fever, but there was no special involvement in the naso-pharyngeal region or throat. Two days after the onset of the fever a considerable amount of inflammation was noticed in the skin surrounding the site of the old operation wound. This was accompanied by intense irritation, and was treated by cold compresses of weak sublimate solution. On the second day after these were applied a small vesicle appeared in the centre of the post-auricular swelling, so linseed poultices were applied: the vesicle burst, and pus escaped. On the following night the fever moderated. On the third day pus issued from the external auditory meatus. On examination the tympanum was found to be considerably congested, especially in the superior posterior part; but, although no perforation was visible, there was probably a small sinus leading into the mastoid antrum. Antiseptic irrigation and plugging with iodoform gauze resulted in a complete cure by 10th February.

RICHARD LAKE.

Reviews of Books.

ANNUAL REPORT OF THE MEDICAL OFFICER OF THE LATE LONDON SCHOOL BOARD FOR THE YEAR ENDED MARCH THE 25TH, 1904 (*continued*).

As was mentioned in the first part of this review, the greatest advance in knowledge recorded in the Report under consideration refers to the two diseases diphtheria and measles; for the work on which this advance is based we are indebted to Dr. C. J. Thomas. In connection with *diphtheria* the following are the questions dealt with: 1. Age incidence in board schools. It is found that the disease only tends to spread amongst children who are between their fourth and seventh birthdays. This is accounted for by assuming that such children have lost the congenital immunity present in infants and have not yet acquired the later immunity found in older children, that which is perhaps due to repeated sub-pathogenic doses of bacilli. 2. Incidence in children generally. Unfortunately, this has not been ascertained except in selected schools; *i.e.* only schools in which there was reason to suspect infection, such as by the presence of recurrent cases, have been examined. Of 758 children examined bacteriologically, 7.6 per cent. had Klebs-Loeffler bacilli and 28 per cent. had bacilli of the Hofmann group—pseudo-diphtheria bacilli. This percentage would be lower still if the schools were examined systematically, apart from the presence of epidemics. Such an investigation should yield valuable results, had but the Board a sufficient staff to carry it out. The results obtained contravene those previously obtained by other observers in London, a contradiction perhaps due to the insufficient differentiation of bacilli in the older results. 3. Pseudo-diphtheria bacilli. It is most interesting to note that these bacilli run parallel with the true diphtheria bacilli, the two kinds waxing and waning in frequency together with great regularity. We would suggest that in the next Report the relationship be indicated more exactly by incidence curves. It is considered that these pseudo-diphtheria bacilli may cause slight sore throat, but that they are totally distinct from the Klebs-Loeffler. The reasons for this latter faith are not given, though they become more necessary in view of the recent French observations showing that typical paralysis may follow such infection. The value of the observations here recorded is lessened by the fact that in the large majority of instances time has not been found to employ any differential tests beyond that of Neisser's. 4. Mode of spread. Dr. Thomas lays great stress on the practical importance of what he terms "carrier" cases, *i.e.* apparently healthy children who harbour bacilli and form foci of infection. There is no way of detecting such cases save by systematically swabbing the throats of all the children in the school, but some brilliant results have been thus obtained. Schools where the disease has been endemic, resisting all efforts at disinfection, have been at once rendered disease-free by the discovery and isolation of one or two "carriers." The negligence of allowing cases of diphtheria to return to school without seeing that they are bacteriologically free is also referred to, as it is evident that even at the present date there are still practitioners who rely purely on clinical evidence in such cases. It has been clearly shown that for months after an illness virulent bacilli may linger in the nasal discharge and throat. 5. School closure. As is logical, it is pointed out that this procedure should never be carried out on account of

diphtheria, seeing that the detection of carrier cases is absolutely efficacious, while the dissemination of the disease is only hastened by closing the school and sending such cases free amongst the community. 6. The lack of facilities for bacteriological examination in many parts of London and the inadequacy of our present isolation arrangements are also referred to.

Measles.—In this connection the most interesting question is that of school closure. It has been shown that if no such measures are taken what happens is this: measles breaks out, probably in several cases about the same time; these at once infect a large number of children who fall ill in twelve days' time; after this nothing further occurs—*i.e.* all the susceptible material is exhausted in the second "crop"; in other words, all the children who have never had the disease get it when first exposed to it. This is in accordance with what we know clinically of the disease, that children are more uniformly susceptible to it than to, say, scarlet fever. Now, it is clear that school closure, to do any good, must be carried out before the sowing of the second crop, immediately on the occurrence of the first case in a susceptible class. If it is carried out later, the mischief is done and the result is the same as if the school were kept at work. Application of this principle costs 63 attendances per case of measles, whereas formerly each case cost 135 attendances.

It is on the subject of *ventilation* that we find the most disappointing section of the Report. Anyone has but to enter one of the best ventilated schools in London to perceive the unspeakably bad conditions under which the teacher and children have to work, and to realise how ideally adapted such conditions are for the conveyance of all forms of colds and other respiratory infections. That this is not to be wondered at is clear when we find the medical officer writing calmly that 130 cubic feet of space is the correct allocation to every child, that the ideal to be aimed at is the keeping of the carbon dioxide below *ten* parts in ten thousand, and that, "judged by this standard, the majority of schoolrooms show excess." That a growing child, not to speak of the teacher,—a child whose respiratory tract is in a state of chronic infection—should be judged to require one-tenth the old-fashioned, out-of-date standard of cubic space seems to us incomprehensible.

Other important questions, such as the deliberate production of myopia by our faulty methods, the non-correction of refractive errors, the new work done on the subject of mentally defective children, and the interesting Mannheim scheme drawn up by Mrs. Berry, we have no space to consider at present. In conclusion, we heartily congratulate the authors of the Report on the mass of work they have been able to accomplish under circumstances the reverse of encouraging, and look forward with great interest to the further development of the lines they are beginning to lay down.

A. ERNEST JONES.

HEALTH AND DISEASE IN RELATION TO MARRIAGE AND THE MARRIED STATE. Edited by Professor H. SENATOR, M.D., of Berlin, and S. M. KAMINER, M.D., of Berlin. Translated by Dr. JOSEPH DULBERG, of Manchester. Publishers: Rehnman, London. Price 30s. net.

THE sale of this work is confined to the medical and legal professions, as it deals in detail and exhaustively with the most unpleasant topics that can engage the serious attention of those who have the welfare of the human race at heart. The eminence of the collaborators is a guarantee that each subject is treated with the least possible grossness. With regard to the

marriage of those who are diseased, it should be dissuaded from when their lives, even with increased premiums, are not insurable. Climate and race as affecting marriage is one of the subjects that specially merit perusal, though it is rather a counsel of perfection, as the time is slow in coming when prejudice will be dead and reason as exemplified by the teachings of the medical profession will become the leading element of the nations. The work, though fascinating, is not pleasant reading, but is of distinct value as a book of reference

T. P. BEDDOES.

New Inventions.

THE GLAS-SEDLBAUER PORTABLE LAMP FOR THE LIGHT CURE OF LUPUS.

THIS is a new hand lamp on improved principles. It is claimed that it performs the work of the Finson lamp at nominal working expenses and will be sold at a price which will bring it within the reach of all practitioners.

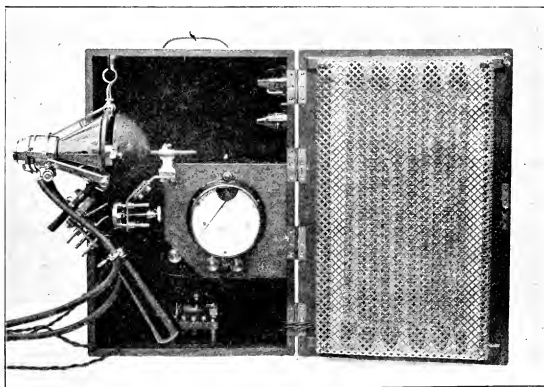


FIG. 1.—Glas-Sedlbauer portable lamp, ready for use.

Fig. 1 shows the lamp ready for use away from home, and Fig. 2 represents the lamp more in detail and with a small lens attached. The lenses, which vary in size for different parts of the body, are three in number: they can be easily and expeditiously changed when required. A most important feature is that these lenses, which are perfectly cooled, neither crack nor wear out in operation—a very expensive feature of other lamps.

A much smaller amount of electricity is consumed than with the Finsen lamp, and wherever electric light and a water tap are at hand there the light can be set in operation by a novice in electrical matters in less than five minutes.

Dr. Jesioneck, when drawing attention to his recent experiments at Munich, in the 'Munich Medical Journal,' reported that "the Glas-Sedlbauer lamp

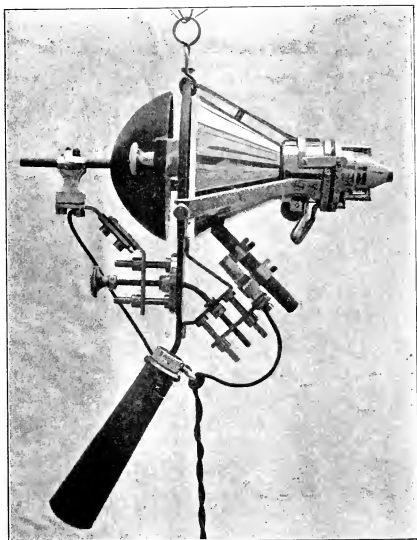


FIG. 2.—Glas-Sedlbauer Lamp, with small lenses. The lenses can be easily varied in size.

took the place and did the work of the Finsen lamp, and the yield of light by this lamp was five times greater than by the lamps now in use."

The reactions produced by the ultra-violet rays of this lamp on healthy and also on diseased skin correspond in quality with those of the Finsen lamp. The therapeutic results on lupus will quite safely compare with those of the Finsen lamp.

The lamp will be shown in operation at the meeting of the Society for the Study of Disease in Children, on Friday, November the 18th, at 5 p.m., at No. 11, Chandos Street, W.

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Original Articles.

CONGENITAL TROPHIC ŒDEMA.

By OTTO GRÜNBAUM, M.D., D.Sc.*

DURING the last few months three cases of congenital trophic œdema have come under my observation.

CASE 1.—T. R—, a male child, aged 3 months, was brought to the Belgrave Hospital for Children because the mother had noticed that the feet were swollen. The parents are healthy and have a child, aged 2 years, which is to all appearances normal. There is no history of abnormal labour, nor any suggestion that the cause of the deformity is due to maternal impression. I remember seeing a case some years ago which was ascribed by the mother to a fright from an elephant during the period of gestation! The feet alone are affected at the present time; the œdema is symmetrical. There are constrictions at each of the joints of the toes and at the ankles. The child is microcephalic, the circumference of the head being 27·5 centimetres.

* *Vide* p. 505. Read before The Society for the Study of Disease in Children, October the 21st, 1904.

CASE 2.—The mother of the second child tells me that her mother had swollen legs “during all her life,” but there seems to be some doubt whether the œdema was congenital. The father is a painter, but has never suffered from any signs of lead-poisoning nor from any illness whatever. The mother says that her feet swell towards evening, but are normal in the mornings. There are three children—a boy, aged 6 years, who is normal; a girl, aged 5 years; and a baby, aged 6 months; these two latter are affected with œdema of the feet and legs.

M. H.— is an intelligent, well-nourished girl with well-marked œdema, and on her I have had an opportunity of making a few observations. The feet, legs, and lower half of the thighs are swollen, the two sides are symmetrical. That this œdema is considerable may be seen by comparing the measurements of her legs with those of a normal child of the same age and build:

	M. H.	Normal child.
Circumference of foot over instep	17·5 cm.	13·7 cm.
Around ankle	17·5 cm.	13·7 cm.
Around calf	20·6 cm.	20·0 cm.
Around knee	22·7 cm.	21·2 cm.

It is evident that the greatest œdema is of the foot and ankle. The toes are very swollen and constrictions mark the joints. The œdema is hard and only pits upon prolonged pressure. The legs are not tender, nor do they ache. Although the mother asserts that the size of the legs is just the same when the child is taken out of bed as when she is put to bed in the evening, nevertheless posture does make some slight difference in the limbs, but the difference in measurement is insignificant in comparison with the alteration in the consistency of the œdema. The legs are considerably harder after having been dependent for some time. The application of a rubber bandage to them diminishes the circumferential measurement by 5 to 7 mm.

The colour of the skin is normal: the temperature of the legs does not suggest any poverty of circulation.

The blood-pressure in the brachial artery is 91 mm. of mercury. This is the maximum, measured by the oblitative method with C. J. Martin's modification of the Riva Rocci sphygmometer.

It is no easy matter to decide whether the skin of the legs is thickened, for the œdema of the subcutaneous tissue leads one to that conclusion upon the first examination; after prolonged massage

I was unable to satisfy myself that there was any permanent pathological alteration of the skin.

Sensation to light touch, pressure, heat, cold, and pain was normal.

A detailed examination of the blood did not seem to me to be devoid of interest, since I thought that it might possibly assist me to decide whether the œdema is due to dilated lymphatics or to excess



of lymph in the connective-tissue cells. Blood was taken from a finger and from an œdematous foot before and after massage. Care was taken to make a sufficiently deep incision with a small lancet to lead to a free flow of blood without manipulation. The blood from the finger was found to contain

Red cells	.	.	5,500,000 per cubic mm.
White cells	.	.	7600 " " "
Hæmoglobin	.	.	76 per cent.

(Haldane's modification of Gower's hæmoglobinometer). Blood from an œdematous foot contained :

Red cells	.	.	4,250,000 per cubic mm.
White cells	.	.	6600 " " "
Hæmoglobin	.	.	70 per cent.

After five minutes' vigorous massage of the foot blood withdrawn from it contained :

Red cells	.	.	3,240,000 per cubic mm.
White cells	.	.	6000 " " "

The last specimen of blood coagulated in 75 seconds at 22° C. (Wright's coagulometer)—*i.e.* considerably quicker than normal. Massage of normal tissues usually leads to a similar result to the one recorded above, but not to so great an extent. On pricking the skin of an area which has been quite recently massaged, tissue lymph pours out with the blood and dilutes it so that the number of cells per cubic millimetre is decreased. The fact that the dilution in this case seems to have been greater than normal suggests that the œdema is due to tissue lymph and not to dilated lymphatics, because these would have been partially emptied by massage. The comparison of differential counts of white cells in the blood taken from the finger and the foot corroborates this view :

	Finger.	Foot.
Polynuclear	. . 49.0 per cent.	49.3 per cent.
Lymphocytes	. . 40.3 "	40.7 "
Hyaline cells	. . 4.0 "	3.4 "
Eosinophile	. . 6.5 "	6.4 "
Basophile	. . 0.2 "	0.2 "

(Over 500 cells were classified.)

The similarity of these counts makes it evident that the diluting fluid either contained white cells in the same proportion as the blood or was free from white cells. The fact that the number of white cells was less in the blood taken from the foot than in that taken from the hand makes it certain that the diluting fluid was free from white cells—in other words, that it was tissue lymph and not lymph from lymphatics. The percentage of polynuclear cells is very low for a well-nourished child of five years. The eosinophilia is suggestive of a parasitic affection. *Filaria* were not seen in any of the blood-films ; this, of course, does not prove their absence. It is quite within the limits of possibility that the increase of eosinophile cells is due to some intestinal parasite and has no relation to the œdema. The examination of the blood of the other cases illustrates this.

	T. R. (Case 1), aged 3 months.	J. H. (Case 3), aged 6 months.
Polynuclear . . .	32·4 per cent.	29 per cent.
Lymphocytes . . .	63·6 „	63 „
Hyaline . . .	1·6 „	6 „
Eosinophile . . .	2·4 „	2 „

I think that the above facts point towards the condition being due to œdema of the connective-tissue cells and not to dilated lymphatics.

CASE 3.—J. H—, a male child, aged 6 months, was admitted into the Belgrave Hospital under Mr. Jaffrey, whom I have to thank for his kindness in allowing me to describe the case. He presents a very similar condition of feet and legs to his sister (Case 2). The feet and legs are swollen, but the feet to a much greater extent than the legs. The skin of the legs is thickened. The skin around the joints of the toes constricts them into three almost spherical masses; the œdema of the terminal phalanges is so great that the plane of the toes is tilted to almost a right angle to the long axis of the toes. The soles of the feet are affected as well as the dorsa; the heels appear to be normal. The measurement around the instep is 13·1 cm., about 1·3 cm. more than the same measurement of a child of the same age.

Since I have three cases only to add to the list it would be out of place for me to give a detailed summary of the numerous instances of this condition which have already been recorded. It may, however, be of interest to see how many varieties of this condition have been described and to note how they differ one from another. Hereditary angeio-neurotic œdema was described by Osler in 1888, but this is quite a different disease from the one under discussion, for the œdema is not persistent and affects different parts at different times. It is, as is well known, associated with other neurotic symptoms, not rarely with intense abdominal neuralgia.

Milroy,* in 1892, wrote a paper on “An Undescribed Variety of Hereditary Edema,” in which he referred to twenty-two individuals in a family of ninety-seven affected with this complaint. The above cases I believe to be similar to those described by Milroy. Meige† recorded trophic œdema in two sisters; in one of these the disease was unilateral. These cases were not congenital. Debove‡

* ‘New York Medical Journal,’ 1892.

† ‘Nouvelle Iconographie de la Salpêtrière.’

‡ ‘Presse Medicale,’ 1902.

has termed a condition in which the œdema does not occur *en masse*, but which affects thighs or feet and not toes, as segmental œdema. In one of his cases the œdema began sharply at the gluteal fold and ceased at the popliteal space. There was not any thickening of the skin. Feindel* portrays two sisters affected with œdema in which the disease was asymmetrical and progressive. Osler† has described cases of scleroderma accompanied by œdema, but in these the scleroderma seemed to be the primary affection. Rolleston‡ described a family in which persistent œdema was a marked feature; in his cases the œdema was distinctly diminished by raising the legs; the skin was not thickened.

The conditions which must be recognised are: (1) Congenital hereditary œdema—(a) symmetrical, (b) asymmetrical; (2) trophic œdema developing in later life; (3) persistent hereditary postural œdema; (4) segmental œdema; (5) scleroderma with œdema.

TWO CASES OF CONGENITAL DIAPHRAGMATIC HERNIA.

By SIDNEY GILFORD, M.B., Ch.B.,§

House Physician, Paddington Green Children's Hospital.

THE two following cases recently admitted into the Paddington Green Children's Hospital are of interest, as they represent a rare variety of congenital diaphragmatic hernia.

CASE 1.—A female child, aged 4 months, was admitted on December the 3rd, 1903, in a moribund condition, under the care of Dr. Guthrie. The child was unconscious, with sunken fontanelle and internal strabismus of the left eye. Her temperature was 103·8° F. The pulse was imperceptible at the wrist, and the respiration was slow and sighing. There was retraction of the abdomen, but no *tâche cérébrale*. Death took place fourteen hours after admission. She was sick six times, each time bringing up dark brown vomit. It was thought probable that she was suffering from cerebral thrombosis.

Post mortem.—Body well nourished. On opening the abdomen

* 'Gaz. Heb. de Med. et Chir.,' 1902.

† 'Journal of Cutaneous and Genito-Urinary Diseases,' 1898.

‡ 'Lancet,' 1902.

§ Read before the Society for the Study of Disease in Children, October the 21st, 1904.

the liver was found to extend almost down to the symphysis pubis, and the gall-bladder, which was in the middle line, was in contact

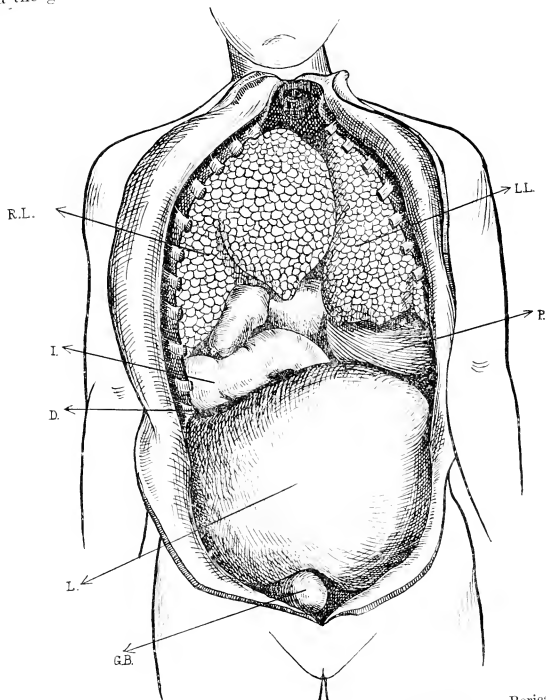


FIG. 1.—CASE 1.—R.L. Right lung. L.L. Left lung. I. Intestine. P. Pericardium.
D. Diaphragm. L. Liver. G.B. Gall-bladder.

with it. The liver was rotated so that the upper surface looked forward.

On opening the chest it was found that the whole of the lower and external portion of the right side was occupied by the large and

small intestines, the right lung being displaced upward and towards the middle line. The anterior mediastinum and the heart were displaced to the left, the right side of the heart being entirely to the left of the left border of the sternum. The diaphragm was pushed down and flattened. The stomach occupied its usual position, but the duodenum, which had a mesentery, passed upwards and to the right and disappeared behind the liver. The large intestine passed obliquely across the abdomen to reach the rectum. The abdominal contents, which had passed through the diaphragm into the right side of the chest, were the third part of the duodenum, the jejunum, the ileum, the ascending and transverse colon, and part of the pancreas. There was no sign of strangulation; and faeces were present in the lower part of the intestine and appeared normal.

The opening in the diaphragm was lying to the right of the middle line external to the crus. Its circumference was about two inches, and the peritoneum was continuous with the parietal layer of the pleura. All the organs appeared healthy, and no cause of death was found.

CASE 2.—A male child, aged 4 months, was admitted on May the 24th, 1904, under the care of Dr. Sutherland.

History.—He was well until six weeks ago, when he had what his mother described as a fit, accompanied by cough and cyanosis. Similar attacks occurred frequently, and finally he was sent in by a doctor who thought there was fluid in the right pleural cavity. He had been fed upon breast-milk only, and had always taken it well. The bowels were usually regular, but he frequently had abdominal pain, and occasionally suffered from constipation.

On admission.—There was extreme cyanosis, and his rate of respiration was 82. A hot bath was given immediately, and he was put to bed with hot bottles around him, and with a turpentine stupe upon his chest. He rapidly recovered, smiled, and seemed quite comfortable.

May the 25th.—His temperature was 99.2° F., pulse rate 124, and respiration 30 to the minute. He had a good colour, but his cough was very troublesome, and respiration was accompanied by an indrawing of the whole subcostal region during respiration, and much wheezing during expiration. There was no movement of the alæ nasi. Slight dulness and diminished breath-sounds were present over the right lung posteriorly, suggesting collapse of the lung, and a turpentine stupe was accordingly put over that region. Rhonchi were present in large numbers over both lungs in front and behind.

The abdomen was very rigid and much distended. The edge of the liver was not felt.

May the 26th.—After a bout of crying he apparently fell asleep,

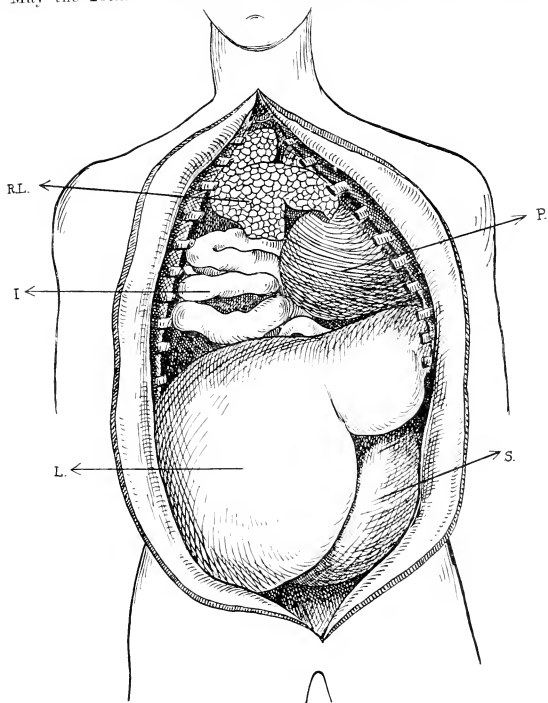


FIG. 2.—CASE 2.—R.L. Right lung. I. Intestines. L. Liver. P. Pericardium.
S. Stomach.

but was noticed to be sweating profusely, and had marked cyanosis and distress. Artificial respiration quickly improved the colour, and the child breathed easily. Two similar attacks occurred during the day, which were relieved when the child passed flatus.

May the 27th.—At 11.30 p.m., with no previous exertion, he was noticed to have become cyanosed, and to be suffering from great inspiratory difficulty and expiratory stridor. The lower interspaces were indrawn upon the left side, but not upon the right, and air hunger was extreme. He rallied, but died in a second attack at 1.45 a.m. on the 28th.

Post mortem.—He was a well-developed child, with firm, well-formed muscles. The fontanelle was nearly closed. The liver nearly reached the symphysis pubis, the presenting part, on opening the abdomen, being the upper and anterior surfaces. The gall-bladder was not seen. The stomach occupied the remaining part below. The lower part of the pleural cavity upon the right side was seen to contain nothing but intestine, the superficial coils of which were distended, and those behind collapsed. The heart and pericardium were pushed over entirely to the left side. The upper lobe of the right lung, pale and firm, was the only part of the two lungs to be seen. The left lung appeared to be healthy. The middle and lower lobes of the right lung were collapsed and slate-grey in colour and had probably never been expanded. The heart was normal, but the right pulmonary artery and veins were very small. The opening in the diaphragm was situated about two inches from the middle line and did not involve the right crus. It lay opposite the attachments of the diaphragm to the tenth and eleventh ribs, and admitted three fingers readily. It was circular in outline. There was no sac of any kind, but the parietal layer of the pleura and the peritoneum were in direct communication through the opening. The abdominal viscera present in the right pleural cavity consisted of the third part of the duodenum with the tail of the pancreas, the jejunum, ileum, cæcum, and ascending colon. The duodenal end was firmly adherent by its mesentery to the posterior part of the ring. The whole of the mesentery of the small and large intestine was abnormally long, and the hepatic flexure of the colon was attached to the anterior part of the ring by a firm band. There was no strangulation. The spleen and kidneys were not displaced, and the liver was not deformed, but was merely rotated upon a horizontal transverse axis.

It would seem that the diagnosis of such a condition should be comparatively easy. One would expect to find the marked displacement of the liver, and to have a tympanitic note and diminution of the breath-sound over the lower part of the right side of the thorax. Unfortunately neither child was in a condition suitable for thorough examination. The first was moribund on admission and evidently had

only a few hours to live, whilst the second child cried whenever he was examined and soon got acutely distressed. The loud rhonchi present prevented any exact auscultation. In neither case was the diagnosis of diaphragmatic hernia thought of. In Case 2 the abdomen was rigid and distended, and the edge of the liver could not therefore be felt readily. The physical signs in the thorax are interesting to note. The collapsed lung at the back gave an area of diminished resonance with diminished breath-sounds, and the child's respiratory distress was thought to be largely due to this collapse. The note in front was not markedly tympanitic, as might have been expected. This is probably due to the fact that as the child was examined in the intervals of comparative comfort, there must have been very little flatus present in the intestines. This is shown by the fact that the child's distress was so frequently noted to have been relieved by the passage of flatus. The adventitious sounds heard all over the chest obscured the true breath-sounds. The child had been sent in by the doctor, according to the mother's statement, for an operation for fluid in the right side of the chest.

A case of diaphragmatic hernia upon the left side with the stomach and part of the intestines in the thoracic cavity was recently operated upon in one of the children's hospitals for a supposed left empyema, although repeated exploration had failed to confirm the diagnosis.

Hillier showed a specimen, before the Pathological Society in 1861, of a diaphragmatic hernia upon the right side with the colon within the thoracic cavity. The child had had attacks of dyspnoea since she was two weeks old and died at seven months with no intestinal symptoms. In this case the note was dull at the lower part of the thorax on the right side and tympanitic above. The absence of any intestinal symptoms in all these cases is rather striking.

An indication of the cause of such hernia may be obtained from a consideration of the development of the diaphragm. Five elements—one median, two ventro-lateral, and two dorso-lateral—enter into the formation of the diaphragm. The median and ventro-lateral are first developed and together form the septum transversum. At a later period the two dorso-lateral elements, which are only present in mammals, are formed and unite with the septum transversum to form the "primitive pleuro-peritoneal septum," and completely shut off the pleural from the peritoneal cavity. It is easy, therefore, to understand why congenital diaphragmatic herniæ should almost invariably occur at the posterior part of the diaphragm. After the second or third month of intra-

uterine life the diaphragm is completed by the growth of muscular fibre springing, firstly, from around the œsophagus and, secondly, from the chest wall at the periphery of the diaphragm.

Both of these herniæ must be included among those classed by M. Nan as "embryonic diaphragmatic herniæ"—*i.e.* herniæ formed before the complete closure of the "pleuro-peritoneal septum," and those which have not therefore acquired a sac. He divides this class into complete, where the whole of the dorso-lateral element, or pillar of Uskow is deficient; incomplete where it is partially absent, and complex where the opposite one is also deficient. These cases will, therefore, come under the division of "incomplete embryonic diaphragmatic hernia."

M. Paillard in his Paris thesis of November, 1903, has put together statistics obtained by Bowditch, Lacher, Kohn, and Boursier, and has classified 130 cases which he has himself collected. In a total of 481 he has found that 93, or practically 20 per cent., have occurred upon the right side. Amongst his own 130 cases he describes 74 complete embryonic diaphragmatic herniæ, of which 15 occurred upon the right side, and in 14 of these the liver, much deformed, was partially within the pleural cavity. He has found only 16 cases of incomplete embryonic diaphragmatic hernia, and of these only 2 occurred upon the right side. One of these contained the small intestine, and the other the small intestine, cæcum, and right kidney. Thus in his 130 cases there were none similar to these two which presented such a remarkable resemblance to each other. It is a strange thing that rare conditions so frequently occur in pairs in a hospital practice.

I have to thank Dr. Guthrie and Dr. Sutherland for permission to publish these cases, and Dr. Emery for the notes of the post mortem in Case 1.

The drawing of Case 1 was taken from a photograph, that of Case 2 from a sketch made at the post mortem.

APPENDICITIS IN A CHILD DISCOVERED BY RECTAL EXAMINATION.

By DAN MCKENZIE, M.D.

THE subject of rectal examination in children received recognition in 'The British Journal of Children's Diseases' for October,

1904, at the hands of Mr. P. Lockhart Mummery, who, in the course of his observations, drew attention to Dr. George Carpenter's original contribution in 'Pediatrics,' in June, 1896, on the great importance of rectal bimannual examination for the diagnosis of a variety of abdominal disorders in early childhood, together with an account of that writer's methods. Dr. George Carpenter records in the above-mentioned communication a diverse number of conditions in which this method of examination was of the utmost assistance to him in arriving at a conclusion. Thus, constipation occasioned by a sacral tumour; an umbilical fistula secondary to a prostatic abscess; a horse-shoe kidney simulating tuberculous peritonitis; tuberculous peritonitis and its distinction from chronic gastro-intestinal catarrh with abdominal enlargement; abdominal abscesses secondary to appendicitis and other causes; tuberculosis of the ureters, impaction of calculi in the ureters, vesical calculus, hydro-nephrosis and pyo-nephrosis; tuberculosis of the uterus and adnexa; ovarian tumours; hydatids and congenital mesenteric cysts, are some of the subjects that are there dealt with by him. This paper also contains details of guidance for the conduct of examination of the female pelvic genitalia, and in Vol. III of the 'Reports of the Society for the Study of Disease in Children,' pp. 79 to 94, under the heading of "Tuberculous Peritonitis," are further observations by Carpenter on tuberculous disease of the female internal genitalia and other pelvic disorders in infants and young children, an account of the conditions of which, during life, by bimannual examinations, he was the first to introduce, and of which a valuable illustration was given by him in the October number of the JOURNAL under the heading of "Gonorrhœal Inflammation of the Uterine Appendages in a Girl of 3½ years, detected by Bimannual Examination; Spontaneous Recovery."

He has also insisted upon the importance of this method of examination in 'Golden Rules for Diseases of Children,' under the headings "Intestinal Obstruction" and "Tuberculous Peritonitis"; and the plan is so valuable that it should be widely known and practised.

The following account is therefore of interest as emphasizing what has already been said, viz., that rectal examination should be undertaken as a matter of routine in all doubtful cases of illness in children, more especially in those in which the symptoms point to the abdomen as the seat of the disturbance.

T. G—, aged 4 years, was first seen on December the 1st, 1903, suffering from pyrexia and general malaise. Temperature 101° F. As

he was subject to periodic attacks of acute gastric disorder resulting from injudicious dietetic indulgence, nothing out of the way was expected in this attack, and, although he was examined in the ordinary manner, nothing was found. Next day, with a temperature of 103° F., he was complaining of stomach-ache together with pain on micturition. Examination of the abdomen was unsatisfactory from the refractory nature of the child, but as far as could be made out the abdomen was hard and seemed to be tender. *Per rectum* the bladder was felt to be full and fluctuating. With the expectation of discovering some cystic trouble the patient was anaesthetised and a catheter was passed into the bladder with ease and without happening upon anything to account for the symptoms. Rectal examination, however, at once revealed the cause of his illness, for, on palpating the pelvis and abdomen bimanually, an oval rounded tumour about the size of a pigeon's egg was found, lying towards the right side of the pelvis, in the right iliac region. Appendicitis was diagnosed, and the same evening the diagnosis was confirmed and the appendix removed by Mr. Marmaduke Sheild, chloroform being administered by Mr. Ernest Cross. In the appendix were several perforations and the organ was found lying in a bath of pus, so that if the diagnosis had been delayed, even for a day or two, the boy would in all probability have lost his life.

The convalescence was complicated, curiously enough, in view of the previous dysuria, by the passage of a fairly large uric-acid calculus, an event which sent up the temperature for a day or two and was heralded by hæmaturia, but thereafter the boy did perfectly well.

The pelvis in a child is, of course, so much shallower than in an adult that we are able with the finger in the rectum to investigate the condition of the abdomen much more completely than can be done in later life. My experience of this mode of examination has been that, in order to obtain a satisfactory result the patient, as in the foregoing case, must be anaesthetised.

Leytonstone.

Clinical Memoranda.

A CASE OF HERPES ZOSTER EXTENDING TO THE FINGER-TIPS.*

By GEORGE CARPENTER, M.D.

HERPES zoster extending to the fingers is rare in any event, especially so in children. The accompanying photographs well

FIG. 1.



FIG. 2.



illustrate the condition which I observed some years ago in a child under my care at the Evelina Hospital for Children. The eruption affected an extensive cutaneous area, viz. the front and back of the upper part of the chest, the arm and forearm in front and behind,

* Exhibited before The Society for the Study of Disease in Children, October the 21st, 1904.

the back of the arm, also the palm of the hand and the little, ring, and middle fingers, with a small patch at the root of the little finger on the back of the hand. The nerve roots affected were the eighth cervical and the upper three dorsal nerves. The girl made an uninterrupted recovery and nothing worthy of note occurred in the case.

The Society for the Study of Disease in Children.

AN Ordinary Meeting was held at the Medical Society's Rooms, 11, Chandos Street, Cavendish Square, W., on Friday, November 18th, 1904. Mr. ROBERT JONES (Liverpool) in the chair.

A Specimen of Congenital Atresia of the Tricuspid Valve was shown by Dr. BERTRAM ROGERS (Bristol) and Dr. J. M. FORTESCUE-BRICKDALE (Bristol). The child, aged 2 years, was admitted into the Children's Hospital, Bristol, suffering from bronchitis with extreme dyspnoea and cyanosis. The fingers and toes were clubbed, and the lips and extremities deep purple. There were no cardiac bruits and no apparent increase of cardiac dulness. She had suffered from repeated attacks of cyanosis. She died in a few hours. Post mortem the heart weighed $3\frac{1}{2}$ ounces. When opened it showed hypertrophy and dilation, mostly of the right auricle and left ventricle, patent foramen ovale, atresia of the tricuspid orifice, and a small opening between the ventricles. There was no sign of endocarditis; the ductus arteriosus was closed. Dr. Fortescue-Brickdale compared the condition with that of a child described by Sievking in 1853 at the Pathological Society, whose heart is now in the museum at St. Mary's Hospital. He attributed the cyanosis to the very deficient aeration of the blood, and to the venous engorgement produced by the obstruction at the foramen ovale. The hypertrophy and dilation, which were partly mechanical, he thought in a measure due to the exaggerated action of the heart in response to the call for oxygenated blood.

A Specimen of Congenital Pulmonary Stenosis was shown by Dr. GEORGE CARPENTER. The condition was associated with a perforate septum ventriculorum and a patent foramen ovale. The aorta in great part arose from the right ventricle. The heart was removed from a girl of two years. There was no history of syphilis or rheumatism, and the child was free from other congenital abnormalities. The right ventricle was hypertrophied and during life this was an obvious feature. There was a loud systolic murmur audible all over the precordial area and of maximum intensity at the xiphoid cartilage; it was inaudible in the great vessels of the neck and only occasionally heard in the back. The lips were cyanosed, and the fingers and toes blue and clubbed. The child was born blue, and the cyanosis had latterly increased—she had twice been convulsed. The red corpuscles were 7,800,000 per c.mm., and the hæmoglobin 122 per cent. She died of measles. Dr. Carpenter drew attention to the large increase in the number of red corpuscles and of the hæmoglobin percentage, which in his experience

was not an uncommon feature in cases of congenital morbus cordis with cyanosis. He also commented on the value of the skiagram in such cases, also on the advent of cyanosis in the subjects of congenital morbus cordis, which was quite often a delayed phenomenon. The absence of a systolic bruit in the great vessels of the neck was touched upon, and its value when audible there as a diagnostic sign of the condition of perforate septum ventriculorum was, he thought, of considerable importance.

A Specimen of Atresia of the Pulmonary Artery was shown by Dr. SYDNEY CURL. It was removed from an infant who was the subject of hare-lip and cleft palate. The septum ventriculorum was patent and the auricular septum was incomplete, the auricle forming one chamber. The aorta was large and sprang from both ventricles, but chiefly from the right. During life the child was not cyanosed, and congenital malformation of the heart was not suspected. There was no bruit, but the infant had attacks of dyspnoea with cyanosis.

Dr. E. CAUTLEY asked each exhibitor whether there had been a history or evidence of syphilis in any of the cases. He believed syphilis to be the great cause of congenital heart disease. He confirmed Dr. Carpenter's observations as to the excessive number of red cells and of hæmoglobin in cases of congenital heart disease; it was often found, but it was not obvious why.

Dr. FORTESCUE-BRICKDALE (Bristol), in reply, said that in his case there was no evidence of syphilis as far as he could make out.

Dr. GEORGE CARPENTER, in reply, said he was in favour of the view expressed by Dr. Cautley as to congenital syphilis being responsible for a certain number of cases of malformation of the heart. He had encountered cases in which that evidence was undoubted, but errors of development and rheumatism and other blood infections were very frequent causes.

Dr. SYDNEY CURL, in reply, said there was no evidence of syphilis in his case.

A Case of Juvenile General Paralysis was shown by Dr. JAMES TAYLOR. The patient was a boy aged 11½ years, the fifth in a family of nine, all said to be healthy. He was born at full-term, suffered from abscesses "in the head and groin" at 1, but did not walk till he was 4. At 6 he developed a faculty for romancing, telling wonderful stories apparently merely to excite admiration. He was also frequently violent and vicious. He attended school and had reached the third standard, when about three months ago his sight failed. He came to Moorfields, where he was seen by Mr. Treacher Collins, who referred him to the exhibitor. He is a small, badly-developed boy without any stigmata of syphilis. He has very much impaired vision, the pupils do not respond to light, and there is well-marked optic atrophy. He walks rather feebly and a little unsteadily, his knee-jerks are active, and his plantar reflexes extensor in type. His mental condition is one of more or less placid contentment with everything. Before he was admitted into hospital he cherished delusions that he was a wonderful singer, and would gather children round him in order that they might hear him sing. The physical signs and the mental symptoms, slight as they may be, appear to indicate definitely that the case is one of juvenile general paralysis, and the physical and mental degeneration is likely to become much intensified.

Dr. PARKES WEBER narrated the case of a youth, aged 19 years, with

general paralysis of the insane. Tremors began eighteen months previous and he gradually lost ground physically and mentally. The tremors affected all the limbs and were somewhat diminished by voluntary movements. He saw the patient two years later, and he was then helpless, apathetic, wet, and dirty. The lower extremities were rigid, and there was decided ankle clonus. He asked whether the tremors in such cases in children had any special significance.

Dr. JAMES TAYLOR, in reply, said with regard to tremor, he did not think that it was by any means a constant early symptom of general paralysis, and tremor was not constant in children the subjects of the disease.

Dr. PARKES WEBER said his chief point was as to whether the tremor did not indicate the presence of some inflammatory lesion in the cerebral cortex, possibly syphilitic.

Dr. TAYLOR, continuing, said he thought it was scarcely necessary to assume the presence of some special process to account for a particular degree of tremor; its extent seemed only to depend on the intensity of the general paralysis.

Two Cases of Cephalhæmatoma Neonatorum over the Occipital Bone were shown by Mr. J. HOWELL EVANS, who subsequently gave a lantern demonstration on the subject. Mr. Evans considered these blood effusions were due to a reactionary hæmorrhage from a small artery which had been injured in the moulding of the infant's head during its passage through the birth-canal. Fetal skulls and many lantern slides of the skulls of various animals were shown to illustrate Mr. Evans's original views. The author advocated the immediate surgical treatment of cephalhæmatoma neonatorum and drew attention to his former observations on this subject.*

The CHAIRMAN (Mr. Robert Jones, Liverpool) said he remembered once in the out-patient department of the hospital seeing a case where, in a hurry, a cephalhæmatoma was opened and everything became septic. If the operation were done at all, it should be performed with the utmost caution.

Dr. C. W. CHAPMAN said that, years ago, when he was seeing such cases, the condition got absolutely well after being left alone. He would not recommend anything to be done in the way of operation.

Mr. HOWELL EVANS, in reply, said leaving these tumours alone was the advice which had generally been given and adhered to, but he could not find throughout the whole of the writings on the subject any person who had viewed the condition in the light of reactionary hæmorrhage. If it was right to treat surgically a reactionary hæmorrhage in the leg, why not operate for a similar condition on the delicate skull of a child? By prosecuting his studies further, he believed that in time he would be able to prove that nearly all the spastic congenital hemiplegias of which neurologists wrote were due to neo-natal traumatism associated with those very vessels which were passing from without the skull into its interior.

Three Cases of Unilateral Congenital Dislocation of the Hip of varying degrees of severity were shown by Mr. DOUGLAS DREW. He brought the cases forward with the idea of obtaining expressions of opinion as to the treatment. Mr. Drew thought in one case that no treatment, either operative or manipulative, was needed, as the child walked extremely well with

* "The Relation of Certain Extra- and Intra-cranial Hæmorrhages in the New-born,"
British Journal of Children's Diseases, May, 1904.

the aid of a slightly raised boot. In the other case, in which the deformity was more pronounced and walking more difficult, Mr. Drew thought that operative measures would be needed, and expressed the opinion that he should choose the open operation in preference to the manipulative.

Mr. LEWIS MCGAVIN said he had seen five cases which were operated upon four or five years ago. They were submitted to the open operation, and three of them died as a result—one from shock, two from septic sequelæ. Of the two which recovered, one relapsed completely to its original condition—and, indeed, was rather worse—and the last had ankylosis of the hip. However unsatisfactory Lorenz's operation had been in its results, one should not submit young children to the open operation without most careful consideration.

The CHAIRMAN (Mr. Robert Jones, Liverpool) said the subject was such a huge one that a general discussion of it could not be entered upon then and there. He had seen bad results from both forms of operation. There were many cases of ankylosis resulting from the open operation, by the best men, and he had seen fractures of the neck of the femur in attempting reductions. The point upon which all would agree was, that if the little child brought forward by Mr. Drew walked as well fifteen or twenty years hence as now, no one would ever think of adopting a manipulative process or the open operation. But unfortunately, that was not quite the history of such cases. It had constantly occurred to him that people brought children of 15 or 16, and even persons of 20 to 30 years of age, in whom the trouble had been congenital dislocation. The abduction became more limited, there was considerable pain, and degenerative changes took place sooner in the heads of the bones at that period, and the after-effects, as a rule, were not good, even in the cases left alone. Surgeons had not lived long enough to know precisely what the after-results would be in cases manipulated and treated by the Lorenz method, and certainly not by the open method. It should be remembered that Professor Hoffer, who was the pioneer and did the greatest work on the open method, had now practically discarded it; he did it now only in exceptional cases and in older children. And Lorenz himself had stopped operating in that way. Why? Surely not because the results were good. And when one heard of gentlemen who had six or eight cases, four or five of which were good, one must abstain from drawing definite conclusions from that small series; conclusions should be based upon a whole mass of cases. He himself was not at all averse to Lorenz's operation; he had performed it many times, and at the Bristol meeting he showed 35 radiographs in different stages. He had had a fair percentage of bad results, stiff joints resulting, and abducted feet, but they were due to his having chosen the wrong class of case for the operation, or to his not having been sufficiently energetic in the matter of early massage. He had recently examined the two cases upon which Lorenz operated when in Liverpool, and they were both absolutely all right, the movement being perfectly free, and they were both unilateral cases. Skiagraphs also showed that everything was in place. He deprecated taking sides on the question; there was too often a partisan feeling thrown into the controversy. He had thought he would operate in the following way: Reduce the hip first, and if one found a thoroughly unsuitable acetabulum, to keep it in the reduced position a fortnight or three weeks, then take the dressings off and make the open incision, afterwards putting the parts through no manipulation. The anterior method seemed most preferable.

It was absolutely unscientific to do what Lorenz and others had done, namely, to try to chisel the head of the femur to fit the acetabulum. The whole result of that could only be ankylosis.

A Case of Old-standing Dislocation forwards of the Head of the Radius of two years' duration was shown by Mr. DOUGLAS DREW. The dislocation was forwards and was reduced by operation, but in spite of the greatest care the condition recurred as soon as movement was permitted. Inasmuch as the function of the arm was very little impaired and the deformity was trifling, Mr. Drew advocated no further interference.

The CHAIRMAN (Mr. ROBERT JONES, Liverpool), said he had seen a great number of cases of dislocation forwards of the radius, and he could confirm what Mr. Drew said as to the difficulty of keeping them in position. He agreed with Mr. Drew that in cases of recurrence it was barely worth while running the risk that operation entailed.

A Case of Bell's Paralysis with a Hemiplegic Onset was shown by Dr. PORTER PARKINSON. The boy, aged 4 years, had been perfectly healthy till July last, when paralysis in the right arm and leg and face occurred suddenly. The weakness of the arm and leg passed away in a week, and, when examined, there remained only weakness of all the left side of the face. Dr. Parkinson thought the case due to a lesion of the nucleus of the facial nerve involving the pyramidal tract in some temporary manner, possibly passing cedema, and, from the sudden onset during the summer, with hyperæsthesia, in a previously healthy child, it resembled the lesion known as encephalitis inferior, pathologically similar to acute anterior poliomyelitis.

A case of ataxy of the cerebellar type was shown by Dr. J. PORTER PARKINSON, a girl, aged 4 years, who for four years had suffered from increasing inco-ordination in the movements of the arms and legs, with increased reflexes. She had also weakness of the ocular muscles, and diffuse choroido-retinitis scattered over the fundi of both eyes. There was mental impairment and an excessive emotional condition. The exhibitor suggested that she had a diffuse degeneration of the brain, with symptoms pointing to a special involvement of the region of the corpora quadrigemina, producing the ataxy, increased reflexes, and ophthalmoplegia. The condition of the fundi of the eyes suggested it was a degeneration occurring in hereditary syphilis, though there was no other evidence, personal or family, to corroborate this.

Dr. C. O. HAWTHORNE agreed with Dr. Parkinson's suggestions as to the condition of the fundus oculi being due to hereditary syphilis. The Bell's paralysis case he thought might also be explained as had been suggested.

Dr. E. CAUTLEY said he thought Dr. Porter Parkinson's diagnosis in the case of Bell's paralysis depended mainly on the history. Personally, he mistrusted histories. He thought the child had got a mild attack of hemiplegia on the right side, and that during the course of it it developed a typical Bell's paralysis.

Dr. PORTER PARKINSON, in reply, agreed with Dr. Cautley as to the danger of accepting histories. With regard to the condition in the Bell's paralysis case being due to a lesion in the nucleus, he believed in that view because the facial paralysis came on at the same time as the arm and leg paralysis.

A Case of Graves' Disease in a boy, aged 12 years, was shown by Mr. SYDNEY STEPHENSON. The thyroid was enlarged, there was slight tachycardia, slight exophthalmos, and a curious pallid puffiness of each upper lid. There were no nervous symptoms.*

Dr. G. A. SUTHERLAND said he supposed comparatively few saw cases at the age of the present child, or even a few years later. The only case which he remembered seeing was that of a girl, aged 13 years, who suffered from seven attacks of chorea, and from symptoms of Graves' disease afterwards. He had had her under observation seven years, and the symptoms had gradually subsided. There was remaining some exophthalmos and enlargement of the thyroid, but apart from that she was quite healthy, and indeed was a very stout, robust girl.

Two Cases of Traumatic Keratitis following difficult Instrumental Labour were shown by Mr. SYDNEY STEPHENSON.*

Dr. C. W. CHAPMAN asked whether any albumin was found in the urine, because there was a moderate accentuation of the second sound, and duplication of the second pulmonic sound. The heart did not appear to be enlarged.

Mr. STEPHENSON, in reply, regretted that the urine had not been examined.

A Case of Progressive Palsy in a boy aged 13 years was shown by Dr. HARRY CAMPBELL (introduced). The paralysis began in the legs at the age of five years, and was noticed in the hands at the age of nine, and in the face at the age of ten. It was symmetrical, and in the extremities mainly confined to the long extensors. Electrical reactions were normal. Dr. Campbell was uncertain as to the nature of the affection.*

A Specimen of Tuberculous Ulcers of the Intestine was shown by Dr. SYDNEY CURL.

A Specimen of a Tuberculous Fallopian Tube removed from a case of general tuberculosis aged $2\frac{1}{2}$ years, was also shown by Dr. CURL. It was not suspected during life. The uterus and ovaries were healthy.

The Glas-Sedlbauer Lamp for the light cure of lupus was demonstrated, an illustration of which appeared in the November number of the JOURNAL.†

Editorial.

EPIDURAL INJECTIONS IN THE TREATMENT OF INCONTINENCE OF URINE.

By epidural injections we understand the method of injecting local anæsthetics into the space which lies between the periosteum of the

* An account of this case will appear in full in an early number of the JOURNAL.

† The lamp can now be seen in operation at the premises of Messrs. Krohne and Sesemann, surgical instrument makers, Duke Street, Wigmore Street, W.

vertebral column and the membranes of the spinal cord. This space is a complete cylinder traversed by the nerve-roots as they leave the vertebral column. The value of such injections in the treatment of enuresis was accidentally discovered in the following manner by Cathelin, a French physician. An American observer, Corning, had in 1885 been the first to attempt the introduction of foreign substances into the spinal column. He selected a spot situated between the third and fourth lumbar vertebrae, penetrating by his injections the membranes of the cord. This method of subdural or subarachnoid injection was further developed by Quinke, who perfected the technique of the operation and some years later introduced it into general use under the name of "lumbar puncture." Hallion then showed that a local anaesthetic, such as cocaine, when injected subdurally acts, not upon the spinal cord, but upon the nerve-roots of the *canda equina*. There was thus no advantage in injecting the substance under the arachnoid, whilst there was always present the risk of the production of sepsis or injury to the cord. Acting upon this, Cathelin attempted to find a method by which he could reach the *canda equina* without touching the cord. He performed a number of experiments upon dogs, and came to the conclusion that the lower opening of the sacral canal constituted the most convenient site of entrance into the canal. He injected coloured fluids at this point, and after death found traces of the pigment covering the surface of the sheath of the cord as high up as the cervical region, whilst none had entered the dural sac. This showed that he had reached the epidural space without penetrating the membranes or running the risk of wounding the cord. He thereupon attempted to produce analgesia by injecting solutions of cocaine into the sacral canal of human subjects. To his surprise the result was not analgesia, but retention of urine. In collaboration with Albarran, he then applied his method of injection to the treatment of conditions of abnormal frequency of micturition, and published a monograph upon the whole subject in 1901. The method was soon employed by other French and a few German observers. The results invariably appear to be eminently encouraging. A certain number of cases have been permanently cured, some as the result of a single injection, and considerable improvement is

reported in many others. Cathelin at first used cocaine, but later substituted normal saline solutions. Strauss uses Schleich's No. 2 solution with the morphia omitted, because he has found that this solution causes less local tenderness. Like Kapsammer and Cathelin himself, he has come to the conclusion that no marked difference exists in the action of the various solutions used. The injections may be made with an ordinary syringe bearing a needle of a length of $1\frac{1}{2}$ in. in the case of children, or $2\frac{1}{3}$ in. for adults. A quantity of from $1\frac{1}{2}$ to $5\frac{1}{2}$ drachms of sterilised normal saline solution may be injected at each sitting; or in obstinate cases as much as 10 or 11 drachms may be necessary. It is advisable to make two or three injections at short intervals even when the cure appears complete after the first; in this way relapses are avoided. In making the injections the patient may be in a standing position, but is best laid on his side with the thighs flexed so that the sacrum is thrown out. The membrane closing the lower end of the sacral canal has now to be looked for. The landmarks of the operation are constituted by the sacral cornua, *i.e.* the posterior and inferior processes of the last sacral vertebra. These are readily found in a child or thin subject, and without great difficulty in a fat person. Between these, at the posterior termination of the intergluteal fossa, a small triangular depression is seen. The needle is inserted at this point and thrust forwards and upwards into the sacral canal. The operation is technically easy and free from all pain save a slight degree of local tenderness. An anæsthetic is not required, and the injection may safely be performed upon out-patients, who are able in a few hours to follow their usual occupations. Provided that the ordinary precautions of surgical cleanliness are adopted the operation is free from all danger; of the thousands of cases in which it has been performed no noteworthy instances of untoward results have been recorded.

We possess no real knowledge as to the *rationale* of this method, but it has been suggested by Cathelin and others that the injections owe their effect to an irritation of the nerve-roots of the cauda equina. The irritation spreads to the medullary centres of the spinal cord and sets up in these a reflex excitation of the molecular elements which produces inhibitory changes in their functional activities. In

consequence of this the tonus of the previously insufficiently enervated sphincter is stimulated and the latter enabled to functionate more actively.

Whatever may be the true explanation, the sound practical results which have been obtained seem to show that we possess in this method a genuine addition to the varieties of treatment at present adopted in cases of enuresis. The method has up to the present attracted little or no attention in this country, and it appears to be worthy of an extended trial. Its chief use lies in the treatment of the enuresis of children, but it has also been successfully employed in the incontinence of urine without mechanical cause in adults, in spermatorrhœa, neurotic polyuria, and other similar lesions of the genito-urinary system.

The method is now being tried at the North-Eastern Hospital for Children by Drs. George Carpenter and E. P. Baumann, who will publish their results.

A Retrospect and a Forecast.

TWELVE months ago the first number of the 'British Journal of Children's Diseases'—as also the first of a wholly British venture in this special branch of study—was in course of preparation, and with this issue its first year is now successfully brought to a close.

In the Introduction to our first number we duly recorded the unsuccessful attempt we made some years back to interest medical men in this country in the study of children's disorders by the simultaneous publication of an English and American edition of 'Pediatrics'; one twin survived, and is now well grown and sturdy, but the other "pined away" from inanition.

Twelve months ago the creation of this publication was not entered upon without some misgivings in view of the unfortunate fate of its predecessor. Although it was natural there should arise on that account some want of confidence in the launching of a similar venture, yet this perhaps not uncalled for hesitation was backed by a strong determination to profit by past experiences and to compel success on the present occasion.

The programme that we then set ourselves to accomplish has been

carried out; and who on perusing the pages of this journal, which will soon appear in volume form, can deny that we have satisfactorily redeemed our pledges?

Many of the original communications that have appeared from time to time in our pages have been of exceptional worth, and go far to prove that this country is lacking neither in men nor in desire for the advancement of knowledge of pediatrics, nor in material for the prosecution of those studies which tend to promote the welfare of the young and the morale and physique of the nation.

That a large and unexplored field of research on children's ailments is open to the diligent student of medicine is evidenced by the wealth of work which is produced by foreign countries in this particular branch of study, as will be clear to all who will take the trouble to peruse our abstracts from the world's current medical literature. Individually, in respect to children's specialists, it will, no doubt, be admitted that Great Britain is not behind other countries, but collectively in relation to a knowledge of children's disorders its medical men are not in the van.

It is freely alleged by many practitioners that there is no necessity for the special study of children's complaints, but that this is obviously an incorrect idea is evidenced by the good work which is daily being produced by foreign specialists.

In the course of time the advent to power of those possessing more modern views on this subject and in the natural order of things the retirement of those who are opposed to reform and whose ideas are mediæval will be productive of a very welcome change, much to the children's advantage.

The medical student, in the process of his education, will not then pass by the ailing infant as of no importance in his daily progress through the wards and out-patient departments of his *alma mater*. Before the millennium we hope his mental appetite will be sharpened by the prospect of a stiff practical examination in pediatrics prior to being legally qualified to practise his honourable calling on the children of the public. But before this can come about the subject should be taught in the medical schools by men who have made a special study of this branch of medicine.

In those halcyon days it is to be hoped that diseases of women and children will not be taken together, as is still the custom in very many institutions. When the authorities who are responsible for medical education have ordained that the student shall undergo a course of instruction in children's complaints and shall be *specially examined*

as to their knowledge in respect to these matters, the alarming infantile mortality which we all must deplore will happily sensibly diminish.

It is ridiculous to condemn mothers for the loss of their offspring and to bewail the high infantile mortality rate—for this excessive mortality is not confined to the poorer classes—when their professional mentors have received no special training in infantile dietetics and management and are therefore incapable of imparting knowledge to their patients which they themselves do not possess.

That the future race of medical practitioners should start on their medical career equipped with at least an elementary knowledge of infant feeding and of childish ailments is the minimum that the public have a right to expect from them.

Outside this aspect of the case there is a growing demand for the special study of pædiatrics by the medical practitioners of this country; the ever-increasing membership of the Society for the Study of Disease in Children and its well-attended meetings testify to it. Let those who think otherwise, and who imagine that by shutting their eyes to facts, or by holding aloof, or by sitting on the fence, they can stem the tide of a popular movement, see for themselves and note the trend of advanced medical opinion. A recently-founded Medical Society that can show the enrolment of twenty new members at its inaugural sessional meeting, whilst an old-established and well-known Society can claim but four, indicates its growing popularity. The fourth annual volume of its 'Reports,' which has recently been published, is one of which its members can be justly proud, and is prophetic of the great future which awaits this Society.

Further, as indicating the growing interest of the medical profession in this special branch of practice, the 'British Journal of Children's Diseases' has proved a phenomenal success; it has rapidly leaped into popularity; its subscribers hail from all parts of the Empire, at home and abroad; it has established exchanges with all the leading medical publications throughout the world, in whose pages abstracts from its columns will be frequently found; it has evidently filled a distinct want; it now occupies an assured position, and all this has been accomplished in the short space of twelve months.

Let it not be imagined, however, that we who are responsible for its foundation are therefore perfectly satisfied with it in its present form; we are alive to its shortcomings as well as to its numerous good features, and our policy will be progressive; endeavours will be made from time to time to improve it when im-

provement is necessary, so that its pages may prove of service to the family practitioner as well as to the specialist. With this object in view it is our intention, commencing with the January issue of the second volume, to provide monthly a clinical lecture, special to the JOURNAL, by various and well-known writers at home and abroad on practical subjects which will prove of service to family practitioners on their daily rounds. On the other hand, the scientific side of the JOURNAL will be kept well up to date, and the abstracts from current medical literature will be more numerous and more varied than heretofore—an epitome of hospital practice and gleanings from the laboratories of foreign workers. There is an obvious advantage to be obtained by the inclusion of records of interesting cases and research work in special departments under one cover, as it prevents their loss to science and greatly facilitates reference and therefore saves much valuable time to the busy family practitioner and the scientific worker. To both classes the JOURNAL will be found of great advantage, and to the latter its world-wide circulation will insure a proper recognition of their important scientific communications in the right quarter.

To the active and hard-working medical staff of the JOURNAL, some of whom assisted us with 'Pediatrics,' and are pioneers in this country of this branch of medical study, we tender our hearty thanks and a warm appreciation of their freely given efforts, to which the literary success of the undertaking is in large measure due. For the material results which have been obtained during the past year the publishers, printers, and their employés—who have displayed the recent records of work done at home and abroad in such a handsome setting, and who, one and all, have taken a personal interest in this venture—must be given due credit, to which they are so well entitled.

To other would-be workers who view the JOURNAL with a friendly eye, we will add that its columns are open to all who desire publicity for interesting observations; they can rest assured that their contributions will not be "buried"; and we invite them to come forward and assist us in making this periodical a storehouse of valuable information which will be a credit to the country, an example for other nations to follow, and a permanent memorial to British industry and research on a subject which is of vast and increasing importance to the national welfare.

Excerpta Puerilia.

Prevention of Cruelty to Children Act, 1904.—We may be excused for once again drawing attention to the various amendments of the 1894 Act as embodied in that of 1904, especially having regard to the following practice, described in a contemporary paper, which we are informed is still a custom in our large towns, though it is not of frequent occurrence :

“The records of the Mendicity Society reveal numberless stories of suffering child life . . . the street singer with the borrowed child is not uncommon. A police officer in the East End told an ‘Express’ representative that, quite as easily as in bygone days, children can be hired as ‘draws’ for perambulating beggars. The prices charged vary, but a baby can be obtained for as little as six-pence a day. There are other women, again, who use children out of arms to beg, and compel them, weak and half-famished, to tramp miles in their quest for charity.”

This form of child suffering ought to be quite impossible for the future, as Section (2) sub-section (*a*) provides “That any person over the age of 16 years who causes or procures any child, being a boy under the age of 14 years, or being a girl under the age of 16 years, or having the custody, charge, or care of any such child, allows that child to be in any street, premises, or place for the purpose of begging or receiving alms, or of inducing the giving of alms whether under the pretence of singing, playing, performing, offering anything for sale, or otherwise, shall, on summary conviction, be liable at the discretion of the Court to a fine not exceeding twenty-five pounds or alternatively, or in default of payment of such fine or in addition thereto, to imprisonment with or without hard labour for any term not exceeding three months.”

It may be as well to note that a proviso to this section sets forth clearly that the sub-section (*a*) does not apply in cases where children appear in charitable entertainments, etc., held elsewhere than on premises licensed for sale of intoxicating liquors, but if held on such premises, a special exemption in writing, under the hands of two justices of the peace, is necessary.

We therefore urge all medical men to make themselves fully acquainted with the provisions of the Act, which they can do for the small cost of twopence-halfpenny. We believe that it is in the power of the general practitioner more than any other person to entirely put a

stop to this form of street begging, without any trouble to themselves other than merely informing the local Inspector for the Prevention of Cruelty to Children, or, if more convenient, the corresponding secretary of the local branch of the N.S.P.C.C., as we are convinced that except in a very gross case of cruelty through exposure—when naturally the medical man would be willing to appear as a witness—there will be no need for the matter to become a case for the police-court; a warning will be sufficient to stop the practice in the individual case, so justifying the aim of the N.S.P.C.C., and the statement that the Society exists, not for the purpose of prosecuting persons for cruelty to children, but to prevent the possibility of its occurrence.

Abstracts from Current Literature.

Medicine.

Syphilitic coryza of the new-born (reprint of a paper in '*Revue d'Hygiène et de Médecine Infantiles*, June 3, No 3, 1904).—**Paul Gaston**.—The author insists on the importance of "snuffles" or congenital syphilitic coryza. It is a serious condition, not only because it may lead to the death of the child, but also on account of the local rhino-pharyngeal troubles it leaves behind, which interfere with nutrition and growth. In his clinical description he calls attention to the fact that "snuffles" commences insidiously, and exists for some little time before it reveals itself. The premonitory signs are difficulty in taking the breast and in breathing. Another point is that the rhinitis may be localised at first to the posterior parts of the nasal cavities. Gaston distinguishes five form, viz.: (1) Anterior coryza; (2) posterior coryza; (3) subacute adenoiditis; (4) suffocating rhino-pharyngitis; and, (5) acute, subacute, and chronic rhino-pharyngitis. These need not detain us, as it is the microscopical part which is of special interest. The author describes in the first place what he has found in the early stages of a mild syphilitic coryza (catarrhal rhinitis). The characteristics are epithelial desquamation and superficial vascular congestion. In the deeper parts of the mucous membrane the arteries and veins are dilated and surrounded by a cellular infiltration, but nowhere do the sections give one the impression of peri-arteritis or of a neo-formation analogous to the infiltrated or circumscribed syphiloma. This is confirmed by an examination with a high power: no polynuclear leucocytes, no plasma cells. The infiltration about the vessels is slight. There is particularly no proliferation of the vascular endothelium, or at any rate it is scarcely to be made out. No micro-organisms. The picture is quite other in marked syphilitic coryza at its acme (streptococcal rhinitis). Here, again, no trace of syphiloma formation. The vascular congestion and dilatation are extremely well marked; but, again, there is little, if any, change in the vessels themselves; but, on the other hand, numerous micro-organisms, short rods,

diplococci, staphylococci, and streptococci. The gravity of syphilitic coryza arises from its localisation and its infectious nature, mainly due to streptococci. The author next deals at length with the numerous complications which follow in the train of "snuffles." These he has tabulated in the minutely analytical manner of our French colleagues. It is not possible in this place to go into the details of these complications. As to the diagnosis of syphilitic coryza, he emphasises once again the importance of this. Usually "snuffles" is the first manifestation of congenital syphilis, and needs careful watching and treating. As to local treatment, it is but too often neglected. The nasal passages must be attended to and kept as clear and clean as possible, following this up with antiseptic insufflations of powders such as iodoform and boric acid (iodoform 1 gramme, benzoin 3 grammes, boric acid 10 grammes—Lermoyez); or calomel (calomel 0.50 gramme, bicarbonate of soda 3 grammes, talc 10 grammes). Peroxide of hydrogen solutions, etc., are also useful in fetid cases. In an additional note, Laurens warns against syringing or irrigating in any way, and also points out the danger of toxic complications with perchloride of mercury, cocaine, etc. He insists on the good results to be obtained by the careful instillation of 4 or 5 drops of peroxide of hydrogen solution (12 vols. strength, diluted with 4 parts of water), three or four times a day, alternating with the use of sterilised vaseline oil. Laurens finds that the instillation of 3 to 4 drops of adrenalin hydrochloride, 1 in 10,000, in each nostril a few minutes before putting the infant to the breast sometimes answers. If it does not, the infant must be spoon-fed, or if needs be, the cesophageal tube must be employed. Gaston's instructive paper contains four plates, two of which are histological. There is also a sagittal section of the frozen new-born head to show the relations of the parts.

GEORGE PERNET.

The cardiac area in childhood (*La Pédiat.*, September, 1904).—**B. Guido**, from his own observations, states: (1) Cardiac percussion in children should be light, trusting more to the resistance perceptible to the touch rather than to the ear. (2) In the very young the heart is very high (second space), its position and direction almost horizontal, the apex 1 to 2, or even 3, centimetres outside the mid-clavicular line. With increasing age the heart becomes lower (third space), and assumes a position and direction more vertical, the apex approaches the mid-clavicular line, and about the seventh year coincides with the nipple; subsequently it is found below and inside it. (3) From birth to the second year of life the heart undergoes rapid enlargement, then moderately increases to the ninth or tenth year, when it undergoes a further rapid development on account of the ever-increasing exigencies of the organism in response to the development of the genital system which is initiated at this age. (4) The area of absolute dulness which in the child is always relatively larger than in the adult should be investigated in every case, together with the area of relative dulness, this method alone giving reliable information. (5) Digital percussion is the most reliable method.

VINCENT DICKINSON.

Suicide in childhood (*La Pédiat.*, August, 1904).—**A. Solaro**, in a review of this subject, considers the best prophylactic to be proper education—*i.e.* individualisation of instruction instead of the schoolmaster's rod and pedagogy in general. Children affected psychically should not be allowed to mix with the healthy ones. Of the causes, he mentions: (1)

Religiosity, very exceptional, owing to the absence of intense religious sentiment in children. (2) Education, which, though not of itself increasing the tendency to suicide, yet does so indirectly owing to dread of school, burdensome lessons, morbid ambition, and the strain of examinations. In Berlin during the period 1788-97 there was only one child suicide, in the next decade three, and in the decade 1812-21 there were 31. (3) Pauperism; a potent cause. (4) Psychic state; heredity has a marked influence, as has also "psychic infection," which in children is common. (5) Sex; more frequent in males, as in adults. (6) Age; the greater part occur between 11 and 25 years; very exceptional previously. (7) Occupation; out of 200 suicides 103 were pupils at "middle" schools, showing the influence of inability to fulfil imposed tasks, leading to morbid states of mind and dread of punishment; 44 out of 88 fathers belonged to the industrial classes, showing the influence of the struggle for existence on the minds of the children. (8) Season; notwithstanding the greater misery of the winter, the greater number of suicides occur in the spring; they are more common at the end than at the beginning of the scholastic year. (9) Special causes: fear of punishment, 58; bad reports, 28; ill-treatment, 18; illness, 12; lecture, 2; trouble, 5; chastisement administered, 25; love, 11; nostalgia, 1; discontent, 5; unknown, 35. (10) Pathology: In two cases there was atheroma of the arteries. Hanging and jumping from the window were by far the most common means in childhood; others were drowning, shooting, poison, stabbing, jumping under trains, and burning.

VINCENT DICKINSON.

Lobar pneumonia in infancy (*Archives of Pediatrics*, September, 1904, p. 641).—**J. L. Morse** analyses 118 cases admitted into hospital during nine years. Of these, 50 occurred in the first and 68 in the second year of life. Only 60 cases of broncho-pneumonia were admitted during the same period. In only 1 out of 77 in which a complete history was obtained was the disease ushered in by convulsions. Vomiting was mentioned in 7, a chill in none. Drowsiness, apathy, fever, and cough were frequent. Apparently the onset is not often acute. The percentages of the lobes affected were: right upper 17, middle 1, lower 16; left upper 14, lower 38. In 61 a whole lobe, in 40 a portion, and in 17 more than one lobe was affected. That is, in 86 per cent. only one lung was involved. The duration of the fever was most commonly seven days, rarely less than five or more than nine. The highest temperature was generally 103° F. to 106° F. Crisis occurred in 68.8 per cent., and was rarely associated with collapse. A pseudo-crisis was only noted in 9 cases. The usual pulse ratio was 150—170 (51.2 per cent.). Death did not occur unless the pulse rate was over 140. Above that rate it had little influence on the mortality. No case died with a respiration rate below 55, and three out of five, in which the rate rose to 90, recovered. The mortality was 26.3 per cent.—36 per cent. in the first and 19 per cent. in the second year, therefore nearly twice as fatal in the first year. In 23 out of the 31 fatal cases there was no complication. In most there was little or no resolution of the lung. Empyema 4, nephritis 1, meningitis 1, cardiac failure 1, thrombosis of longitudinal sinus 1, were causes of death in the other 8. To a certain extent the mortality varied with the amount of lung involved, but not with the portion affected. Complications noted were: empyema 9, serous pleurisy 1, otitis media 21, thrombosis of longitudinal sinus 1, pneumococcal meningitis 1 (fatal), marked meningeal irritation 3, acute nephritis 1, jaundice 1. The treatment

consisted of nursing and diet in 30 cases; anti-pneumococcic serum, without effect on the course of the disease, in 10; creasotal in 6, no apparent benefit; brandy in 70; strychnia in 30; spiritus ammoniæ aromaticæ in 12; digitalis 1; caffein 1; phenacetin 8; lactophenin 1. Cold, in various forms, was used in 28 cases. Tub baths at 80° F. to 100° F. were usually badly borne, and in 2 out of 8 caused serious collapse. Sponge baths at 80° F. to 90° F., or of alcohol and water at 100° F., were used in 5 cases, and fatigued the patients without benefit. Fan baths at 100° F. to 110° F. were used in 14, and in 11 did good. The cold pack was used in 1 case with good results. Cotton jackets and poultices were never used, and no applications were made to the chest. The writer concludes that the prognosis varies decidedly with the age of the infant, and to a certain extent with the amount of lung involved. It is good when the fever is not over 103° F., the pulse not over 140, and the respiration not over 55. The cases were under the care of Rotch, Wentworth, and the writer.

EDMUND CAUTLEY.

Transmission of hereditary syphilis to the second generation (*La Clinique Infantile*, October, 1904).—**Edmond Fournier** reports on 116 families in which one or both parents had congenital syphilis. There were in these families 366 pregnancies, ending in abortion in 115 cases, and 174 infants died during the first years of life. Of the 192 survivors 31 only were healthy and 28 had definite syphilitic disease. The following conditions were found, in this order of frequency: infantilism with retardation of speech, cranial deformities, ocular lesions, convulsions, meningitis, idiocy, stigmata of degeneration. Fournier considers that these children can transmit syphilis to their descendants. The forms of active syphilis shown in the second generation were roseola, gummata, plantar and palmar syphilides, and ulcerations of the vulva, anus, etc.

J. PORTER PARKINSON.

Primary tracheobronchial diphtheria (*La Tribune Med.*, 1903).—**Emile Sergent** and **Henri Lemaire** publish a case of this rare condition, the existence of which has been often denied. It occurred in a young girl, aged 21 years, who was taken with intense dyspnoea accompanied by recession above and below the sternum. She had no sore throat, coryza, or enlarged glands in the neck. Laryngoscopic examination showed the larynx to be of normal appearance but paralysed. Tracheotomy resulted in a copious elimination of false membrane and immediate relief. The bacteriological examination showed the diphtheritic character of the false membranes, one of which was 15 cm. long. In spite of vigorous antitoxin treatment she succumbed in six days from uræmia. The necropsy showed extensive false membranes over the whole bronchial distribution, with foci of broncho-pneumonia, while two large peritracheal lymph glands compressed both recurrent laryngeal nerves. A culture from the lungs showed the Klebs-Loeffler bacillus alone, and these were demonstrated also in the alveoli of the lung. The illness had begun eight days before admission into the hospital with signs and symptoms indistinguishable from bronchitis.

J. PORTER PARKINSON.

Involvement of the eyes in epidermolysis bullosa (*The Brit. Journ. of Derm.*, xvi, 1904, p. 225, and *The Ophthalmoscope*, ii, 1904, p. 308).—**George Pernet**.—The patient was a boy aged 15 years, in whom, in addition to the bullous lesions usually met with in Epidermolysis bullosa (also called congenital pemphigus), the eyes were affected in a similar way to

the skin; that is, the superficial parts of the cornea could be made to slide over the underlying deeper parts. I considered the complication was unique in literature, as he had not been able to trace any other instance of the kind.

JEAN FERRAS (Luchon).

The curative value of lumbar puncture in chorea (*Riv. di Clin. Ped.*, June, 1904).—**G. B. Allaria** practised lumbar puncture in seven cases. A cannula of 2 mm. diameter was inserted between the fourth and fifth lumbar vertebrae, the patient lying horizontally on the left side. A local anaesthetic such as ethyl chloride was rarely necessary; the only symptoms noticed were slight and transient headache, and vomiting. The author divides his case into two series; in one the cerebro-spinal fluid issued in drops without force, and the other in which it issued under strong pressure. Of the first series, three cases, no improvement in the choreic movements was obtained; in the second series, four cases, more or less rapid diminution of the movements occurred, in one case, a girl of 16, being so marked that two hours afterwards she was able to put food into her mouth without difficulty, and after ten days left the clinic cured. The mechanism of the therapeutic action of lumbar puncture is the decompression caused by the abstraction of fluid and the elimination of toxins.

VINCENT DICKINSON.

Acute myocardial insufficiency (*Archives of Pediatrics*, September, 1904, p. 655).—**F. Forcheimer**, of Cincinnati, draws attention to the large number of acute myocardial insufficiencies which develop in connection with such diseases as scarlatina, diphtheria, rheumatic fever, septicaemia, typhoid fever, and pneumonia. He ascribes many cases of heart weakness during pubescence and early adult life to myocardial changes, especially interstitial ones, set up by these diseases in earlier life. In some cases the symptoms of insufficiency do not develop until after the primary disease is apparently over. The cause may be either a primary myocarditis or a secondary process following a degenerative change. The early signs are diminution in heart force and arrhythmia; then follow dilatation of the left heart, of the right heart, relative insufficiency of the valves, and enlargement of the liver. Sometimes the right heart is first affected. Tachycardia or bradycardia may be present. Diphtheria and influenza are the most common causes. The most essential point in the treatment is absolute rest. Symptoms, which throw an extra strain on the weakened heart, e.g. cough, should be attended to. Digitalis is often useful. Stimulants are almost always necessary. Special attention to convalescence and during this stage use may be made of Swedish movements, massage, etc. Strychnine may be used as a tonic. Nitro-glycerine should be avoided if there is any evidence of vaso-motor paralysis. For the latter condition camphor is reliable and caffeine still more so. Forcheimer has found hypodermic injections of adrenalin of value, but they must be repeated every two hours, as the effects are transitory. Saline infusions, ice bags to the abdomen and abdominal massage help in the treatment of this form of paralysis.

EDMUND CAUTLEY.

Pathology.

Meningitis as a complication of the pneumonias (*Rev. Mens. des Mal. de l'Enfance*, May, 1904, vol. xxii, p. 193).—**Roger Voisin** publishes a valuable article on this subject. Clinically, there are all degrees of intensity

in the meningeal symptoms that may be met with in pneumonia, varying from some stiffness of the neck and rigidity of the limbs to repeated general convulsions and coma. These symptoms the writer describes in some detail. At autopsies the same rule holds: sometimes the meninges are coated with pus, much more commonly on the convexity than at the base; or, on the other hand, there may be some slight cedema and injection of the pia mater—a condition usually described as serous meningitis. The noteworthy facts are that on the one hand a purulent meningitis may be found when no symptoms have been evident, and on the other hand intense meningeal symptoms may occur, when only the slightest lesions are found post mortem. These latter cases were first attributed to *meningism*, a dynamic alteration in the functions of the meninges; later, since Dupre's work in 1894, the action of toxins has been held responsible. This opinion seemed to be confirmed by the absence of growth in cultures taken from the fluid, until 1897, when Lévi, in a case of serous meningitis from which no organisms grew, used the sensitive pneumococcic test of injecting the fluid into white mice, with the result that they rapidly succumbed to pneumococcic septicaemia. Lévi considered that serous meningitis was therefore an attenuated meningitis, but other writers have interpreted his results as showing that it is a hyper-virulent meningitis, the cases dying before pus has time to be formed. **Voisin** has examined the fluid obtained by lumbar puncture in cases of broncho-pneumonia and lobar pneumonia. He states that the liquid is usually clear, but may rarely be cloudy, then indicating a purulent meningitis; the liquid is abundant, and may be under high pressure; the quantity of albumin is increased notably, the heat test being sufficient to demonstrate this; he was unable to confirm either René Mond's opinion that serum globulin is normally present, the increase in the albumin in meningitis being due to serum albumin, or Sabrazé's opinion that serum albumin is normally present in minute quantities, and is merely increased in meningitis; the percentage of chlorides is diminished, but not to the extent nor with the constancy that they are in tuberculous meningitis; leucocytosis was not common, and occasionally was of a lymphocytic nature; he agrees with Concetti and Percheron (*ib.* abstract above) that a polynucleosis in a clear fluid is only found in tuberculous meningitis when very numerous bacilli are present. As regards organisms, he was struck by the fact that even in purulent meningitis, when they could be seen in stained films, they could not be grown either on cultures or in animals; streptococci seemed to be modified in cerebro-spinal fluid, so that it was often difficult to differentiate them from diplococci; he never found Pfeiffer's influenza bacillus, as other workers have. In short, in practically all cases of pneumonia evident changes were present in the meningeal reactions, and these changes, though of variable degree, could not be correlated with the intensity of the clinical meningeal symptoms. On the other hand, by Nissl methods, changes were found in the cortical pyramidal cells which appeared to vary in degree exactly with the clinical phenomena. The mode of infection of the cerebro-spinal fluid is next considered. Post mortem pus was found in the middle ear in over 75 per cent. of the cases; Netter has clearly shown that virulent organisms may exist in this cavity, and may infect the cranial cavity without ever producing purulent otitis. The nasal sinuses are another possible route. Nevertheless, for reasons that are not made clear, **Voisin** considers that the blood is the usual means of infection, but he cannot confirm Hutinel's view that meningitis of this origin is less virulent than that of otic origin.

In conclusion, the author claims that meningeal infection is almost constant in pneumonia in children, and that the termination will depend entirely on whether or not the cortical cells are affected by the poison.

A. ERNEST JONES.

Acute tuberculous pericarditis with large hæmorrhagic effusion (*Rev. Mens. des Mal. de l'Enfance*, August, 1904, vol. XXII, p. 368).—**Richardière** and **Tissier** describe fully the case of a boy of ten who was brought to hospital after suffering from pain in the left side of the chest for a fortnight. He presented these signs: Heart's apex beat not perceptible; dulness from second to ninth rib, omitting Traube's space; friction about the third space (curiously enough sitting up made this louder); pulsus paradoxus; the lungs were healthy. In another fortnight the boy died, and at the autopsy a very intense and extensive pericarditis was found which under the microscope proved to be tuberculous. There were one and a half pints of a chocolate-coloured bloody fluid in the pericardium. Slight adhesions were present, but only posteriorly. An unsoftened tuberculous mass was present at the apex of the right lung, which was partly adherent to the parietal pleura. The case is a rare one, but not unique. Indeed, Virchow held that a bloody fluid in the pericardium was presumptive evidence of tubercle. It is interesting that, as the pericardium was not tapped during life, bleeding due to instrumental interference, or to rupture of vessels consequent on relief of pressure, can be excluded.

A. ERNEST JONES.

Cerebral hæmorrhage in a boy of twelve (*La Tribune Médicale*, August 20, 1904).—**Gallavardin** and **Jambon**. The patient, five times choracic in five years, became suddenly apoplectic; after some hours of coma he remained paralysed on the right side, with aphasia. Seven days later was again apoplectic, followed by general contractures, Cheyne-Stokes breathing, etc. Two days later died comatose with hyperpyrexia. There was found in the left hemisphere a large clot which had a purulent centre, and in the right the centre of the hemisphere was destroyed by a large hæmorrhage, which had opened into the ventricles and extended to the pia mater. In the heart no murmur had been heard; there were large vegetations on the mitral valve which had caused infarcts of the spleen and kidney.

T. P. BEDDOES.

Lumbar puncture and the diagnosis of tuberculous meningitis (*Rev. Mens. des Mal. de l'Enf.*, February, 1904, vol. XXII, p. 85).—**Percheron**, in an elaborate monograph, fully considers the value of lumbar puncture as an adjunct to the diagnosis of this condition. After considering the various points of technique in the procedure, which is universally considered to be harmless by those experienced in it, he deals at some length with the evidence that can be thus obtained. The mode of flow is more rapid than normal, owing to the increased pressure of the liquid, which may even spurt out. The colour of the liquid is often slightly yellow, from the presence of serum lutein, instead of being quite clear, and in the later stages the usual transparency is replaced by a cloudiness. The author attaches great importance to the characters of the coagulum that forms after standing. In tuberculous meningitis it floats in the middle of the liquid; it is translucent, with, perhaps, some whitish flocculi; it is of extreme tenuity, resembling a spider's web; when removed it forms a whitish or greyish mass, tough and very difficult to spread on a slide. In non-tuberculous meningitis

the coagula are tenacious, often of a yellow colour, adhering to the walls of the vessel, capable of being spread out more easily, and are composed of a very rich network enclosing cellular elements and micro-organisms. The author attaches no great value to the study of the tonicity, the freezing-point of the liquid, its toxicity, its agglutinating power, or to its permeability to iodides. The percentage of chlorides is diminished, as is the reducing power of the liquid. This latter may even be completely absent. The albumin, normally present in traces, is always increased in any meningitis; in addition to the normal globulin serum albumin may be demonstrated by Arthus's method. It has lately been shown that secondary infections are not very rare in tuberculous meningitis, so that the presence of organisms other than tubercle bacilli do not, as was once thought, exclude a tuberculous process. Tubercle bacilli may be found by microscopic examination after centrifugalisation, by inoculation of guinea-pigs, and by cultivation in special media. Authorities differ greatly in their estimate of the value of the first procedure, Marfan having only exceptionally found bacilli thus, whilst Pfandler found them in 70 per cent. of his cases. Percheron found them in seven of his sixteen cases. By inoculation, however, their presence may be demonstrated practically always. The cytological examination is that most usually practised. In non-tuberculous meningitis a polymorphonuclear cytosis appears early in the case, to give way later to a lymphocytosis as the case progresses towards recovery. In tuberculous meningitis there is lymphocytosis throughout, except in cases with very abundant tubercle bacilli, or with a secondary infection. All the above questions are gone into with great thoroughness, so that the paper furnishes an indispensable basis for further researches.

A. ERNEST JONES.

Status lymphaticus (*Archives of Pediatrics*, July, 1904, p. 500).—

R. A. Biechele reports three fatal cases. (1) Female, aged 11 months; under treatment aged 6 months for entero-colitis, during which she had an attack of thymic asthma and several slight convulsive seizures. Rickets were well marked. The tonsils were large, adenoids present, superficial glands not much enlarged, and there was increase in dulness over the region of the thymus. After a slight fall she had convulsions for two hours, then thymic asthma for three hours, followed by a short period of coma, and then again convulsions until death, twenty-two hours after the fall. (2) Male, aged 22 months; always healthy until an attack of influenza of a mild type. On the second day of the attack he developed epileptiform convulsions and died four hours later. At the autopsy the tonsils were greatly enlarged, adenoids marked, rickets present, and the thymus weighed 52 grammes, filling out "the critical space of Grawitz," but not compressing the trachea. The bronchial lymph nodes and the spleen were enlarged. Peyer's patches were large and elevated, and the solitary follicles were very conspicuous throughout the large intestine. Mesenteric and retroperitoneal glands were also very numerous and enlarged. Microscopically, the thymus exhibited hyperplasia of lymphoid elements and degeneration of Hassal's corpuscles. Similar hyperplasia was seen in the lymphoid elements of the intestines, the mesenteric glands, and the spleen. The liver showed diffuse fatty degeneration and the kidneys a state of cloudy swelling. (3) Female, aged 13 months; always healthy except for periodic attacks of tonsillitis. Illness began with an attack of influenza. Next morning the child appeared bright, but restless. About twenty minutes after being seen she became convulsed and died during a third seizure shortly after. A partial post-mortem

examination revealed a large thymus, large tonsils, and adenoids, and a very extensive hypertrophy of the superficial glands. The child had been a mouth-breather since birth. There was no evidence of rickets, but the spleen could be easily palpated. Enlarged thymus may be the only thing found post mortem: it may weigh as much as 150 grammes. Biechele draws especial attention to the marked elevation of Peyer's patches and to the very distinct aggregation in the ileo-caecal region. This condition is said by Ohlnacher to be characteristic.

EDMUND CAUTLEY.

Surgery.

Treatment of chronic prolapse of the rectum by paragangline. (*La Pédlat.*, August, 1904).—**L. Miserocchi** relates the case of a child aged 3 years, who had suffered since birth from a serious gastro-intestinal disturbance with prolapse, which for the last six months had become habitual at every action of the bowels, which were at times loose, at others constipated. He was treated ineffectually for some time by means of rectal suppositories, and was then ordered as an injection 50 drops of paragangline vassale in 200 grammes of water, morning and evening. After fourteen days, during which defecation was performed daily, and with lessening pain, the absence of prolapse was noticed. The injections were continued ten days longer, and as there was no recurrence they were then omitted. During the twenty-four days of treatment the inflammatory condition of the bowel did not improve much, but was then cured by $1\frac{1}{2}$ grammes of sulphate of sodium given every morning.

VINCENT DICKINSON.

Mercurial necrosis of the jaw (*L'Echo Médical du Nord*, October 9, 1904).—**Jourdan**.—A girl aged 12 years had four injections of calomel (amount not stated) in a fortnight, when in hospital in Madagascar for syphilis. Givignitis, salivation, difficulty of mastication and speech followed, with hæmorrhagic phenomena. A large number of teeth were lost, and a large part of the inferior maxilla came away; cicatricial adhesions formed round the mouth, reducing it (as shown by photographs) to a mere gap.

T. P. BEDDOES.

Separation of the epiphyses (*Gazette des Hôpitaux*, October 8, 1904).—**Kirmisson**.—These are most common from 12 to 15 years and decrease up to the 25th year. There are usually superadded fractures of the displaced bones. The separation may occur in the middle of the epiphyseal cartilage, or this may remain adherent to the bone, of which a layer intervenes between the cartilage and the line of separation. The rupture of the periosteum and its stripping off favours return of displacement, and by intervening between the parts hinders reduction. Poland's classification of relative frequency is adopted—the lower extremity of the femur, the lower end of the radius, the upper then lower ends of humerus, the lower and upper end of tibia. The crepitation is fine and equal. Blood may collect in the joint, gangrene may occur from rupture of vessels at the time of injury, or from the displaced bones pressing on the vessels. Separation of the lower end of the femur is best reduced with the knee flexed. The upper end of the shaft of the humerus is drawn upwards, forwards, and inwards. In dislocations the rounded head of the humerus is large, with a gap under the acromion. Resection of the humerus may be required for reduction or vicious union. Reduction is easiest with the limb raised abducted with

traction on the arm. At the lower end of the radius the displacement may be considerable, together with pain and swelling near the joint; movement may be normal, crepitation absent, and the injury may require a skiagram to diagnose accurately. Separation of the lower epiphysis of the humerus is rare—Poland only records six cases—because it is narrow, passing below the condyles, and on the outer side passing obliquely downwards and inwards. Separation of epitrochlear may occur, as it does not unite till the seventeenth or eighteenth year. In children fracture of both bones of the forearm occurs some distance from the wrist. The upper epiphysis of the femur may be separated by injury, or by muscular contraction and may pass unrecognised for a time; increasing deformity simulates coxa vara, best treated by extension; cases seen late may require open treatment. In one case, seen six weeks after injury, the neck was drawn up, there was no formation of fibrous tissue; the part was removed after resection of the round ligament; seen twelve years after, the result was perfect. These separations may be followed by shortening. Poland records eighteen after separation of the lower end of the radius. But as the injuries often occur towards the end of the period of bony growth and compensatory increase of other centres may occur, the shortening is not often complained of.

T. P. BEDDOES.

Tubercle of the œsophagus (*Journ. de Médecine de Bordeaux*, September 4, 1904).—**Rocher**.—A girl, aged 12 years, swallowed caustic potash six months before admission into hospital, when she weighed 18 kilos. (39.6 lbs.); temperature 35° C. (95° F.). She was so weak that she could not move in bed. Serum was injected. A fine bougie was with difficulty passed and retained till next day, when a larger one was employed and retained till the evening; she could then drink better. The bougie was increased to a No. 15, being left in two or three hours. The weight increased 3 kilos. (6.0 lbs.) in three weeks, and went up to 33 kilos. (72 lbs.). The patient herself could in the course of an hour pass a No. 24 or 25 bougie into the stomach. Dilatation was practised every four or five days. Fourteen months after admission she coughed up a wineglassful of blood. A cough began and weight was reduced to 25 kilos. (54 lbs.); one lung was affected primarily; in five months more both lungs were affected and caused death, the permeability of the œsophagus being unaltered. Post mortem the ileo-cæcal glands were enlarged. The lungs contained tubercles, with extensive pleural adhesions. Round the œsophagus were many large glands adherent to it and the left bronchus; some glands were pigmented. The stricture was in the middle part of the œsophagus, and here there was extensive ulceration. References are given to twenty-five other cases of tubercle of the œsophagus.

T. P. BEDDOES.

A case of pneumococcic pyæmia (*Lancet*, Oct. 8, 1904).—**A. T. Davies** and **W. Langdon Brown**. A girl aged 8 years had been ill for two days. She was anæmic, with rapid pulse and respiration. The temperature was 102.4° F. On examination she was found to be suffering from bronchopneumonia, peritonitis, and arthritis, the latter involving the right knee-joint, which was swollen and tender. Five days later the patient showed signs of improvement, but after the lapse of another week she did not appear to be so well. Evidence of empyema involving the right side was now made out, and the pus was found to contain diplococci staining with methylene blue and by Gram's method. The abdomen was distended and tender and showed signs of free fluid, while the knee was still swollen

and painful. A blood count gave 4,000,000 red corpuscles and 21,000 leucocytes per cmm. The seventh right rib was resected, 20 ounces of pus removed, and a drainage-tube inserted. The signs in the chest now rapidly cleared up. Five days later the knee-joint was explored. It was found to contain four ounces of pus, which showed diplococci similar to those obtained from the pus in the chest. The right hip-joint now began to swell, but an exploring-needle gave a negative result. About a fortnight later the abdomen, which had been improving, showed signs once more of free fluid. Sickness, with feeble and rapid pulse, now troubled the patient, while a few petechiae appeared on the abdomen. Eight ounces of pus were removed by a Southey's tube, and later laparotomy was resorted to, resulting in the evacuation of about three pints of pus. From this time the patient began to improve and to put on flesh. Convalescence was tardy, and during this period the patient had a slight vaginal discharge, and a return of oedema round the knee-joint. Six months later she was in excellent health, and showed no ill effects from the disease except a flexed and ankylosed knee. Liability to secondary pneumococcal infections seems to be greatest in early life. Probably, while the local lesion is sufficient to cause death in older persons, the more resistant young can tolerate an extensive invasion before succumbing. In the present case probably the infection occurred through the lung. As a direct sequel to pneumonia or broncho-pneumonia we may regard peritonitis as decidedly rare. Most of the recorded cases show a somewhat chronic course, a tendency to relapse, and a tedious convalescence. Arthritis was formerly regarded as a rare pneumococcal lesion. It usually appears during the height of the disease, and it usually implicates the synovial membrane. The knee is the joint most frequently attacked. The vulvitis in this case occurred after the opening of the abdomen, and was due to the discharge running down on to the vulva. It yielded to simple antiseptic lotions, and was, therefore, in all probability, due to accidental contamination and not to any deep-seated cause.

JAMES BURNET (Edinburgh.)

Symptomatic Metatarsalgia in Paralytic Talipes (*Congrès de Gynécologie, d'Obstétrique et de Pédiatrie, Rouen, April, 1904*).—**Pénaire** read a paper on this condition. He says that the pain occurs on walking, on putting on or taking off the boot; the site is always over the anterior extremity of the first metatarsal only, which shows no swelling; the symptom only occurs in talipes valgus, equinus, and equino-valgus; the anatomical lesion is a deformity of the head of the bone, a condensing osteitis, and often there is a serous bursa over this. It is easy to distinguish the condition from Morton's metatarsalgia. The symptom is at once remedied by curing the deformity by the usual surgical principles. **Broca** did not admit the terminology used by Pénaire. The lesions shown were those of a hygroma.

A. ERNEST JONES.

Intussusception cured by sloughing (*Archives of Pediatrics, July, 1904, p. 494*).—**J. M. Snow** reports a case of a baby, aged 7 months, who had severe symptoms simulating an ileo-colitis for sixteen days. At the end of this period the abdomen was distended and tympanitic, but no tumour or tenderness was detected. During examination gas, mucus, and faecal matter were passed, followed by protrusion of a mass like ragged membrane from the anus. Next day this protruded mass, consisting of necrosed intestine about six inches long, was removed by pulling it down and passing a ligature round the living tissue above. Spontaneous cure by gangrene and elimination of the dead intestine was much more common formerly than it

is now, when cases of intussusception are more readily diagnosed. Such a cure is least frequent in infants under a year old; for they die of pain, inanition, exhaustion, and shock too early for the process of separation to be complete. Snow could only find four other recorded cases, viz. a baby aged 12 months (Henoch); boy, aged 7 months (Beeston, 1893); girl, aged 7 months (Harrison Cripps, 1882); baby, aged 6 months (Stimmeyer, 1894).

EDMUND CAUTLEY.

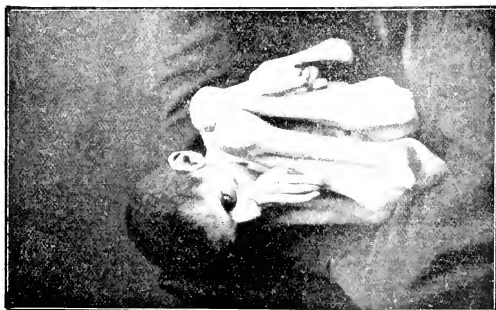
A case of extraction of an intubation tube from the right bronchus.—**McCosh** relates the case of a child, aged 14 years, on whom thyrotomy had been performed in 1895 for multiple papillomata, and simultaneously tracheotomy at the level of the third and fourth tracheal rings; the cannula was continuously worn until 1900. Examination at this date showed that the lumen of the larynx was entirely obliterated for the space of $1\frac{1}{2}$ cm., and the epiglottis was bound down by scar to the upper inlet. By two operations the channel was restored and the epiglottis freed, a rubber tube being fixed in the canal. Later the raw surfaces were covered with epithelial grafts, and lastly the front wound was closed. After two months the rubber tube was exchanged for an intubation cannula, and this was worn for two years uneventfully. A forcible inspiration suddenly displaced it into the right bronchus. This accident was followed by cyanosis and bloody expectoration. Ineffectual attempts were made to extract the tube through the enlarged tracheal fistula; about sixty hours after the accident the trachea was split right down to the sternum, but attempts to extract were then accompanied by serious venous hæmorrhage from the trachea. The condition appeared desperate, but the large roughened tube was eventually dislodged, and the hæmorrhage then soon ceased. The tracheal wound was then closed except for an opening sufficient to accommodate a tube; the latter was discarded in fourteen days. Since then the patient breathed easily through the new-formed larynx, and the voice was sufficiently loud to be heard in a large room.

K. W. MONSARRAT (Liverpool).

Reviews of Books.

RECHERCHES SUR L'EPILEPSIE, L'HYSTERIE ET L'IDIOTIE: COMPT-RENDU DU SERVICE DES ENFANTS IDIOTES, EPILEPTIQUES ET ARRIÈRES DE BICÊTRE PENDANT L'ANNÉE 1902. Edited by BOURNEVILLE. (Bureaux du Progrès Médical, 1903.)

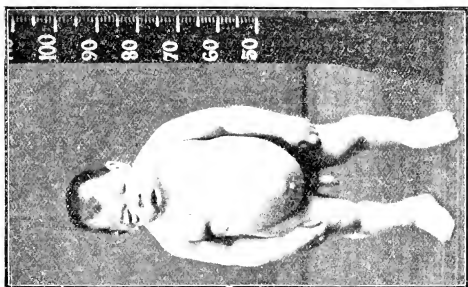
The appearance of this volume, the twenty-third of its series, is a reminder of yet another department of medicine in which the foreigner is relied upon for all progressive research. It is a book that has no counterpart in England, for the simple reason that such original investigation is not being carried out, except in the most spasmodic and unmethodical manner. The great gift that the workers at the Bicêtre appear to possess is that of enthusiasm; this is probably inspired by their chief, Bourneville, whose capacity for work is apparently unlimited; it is evident in every page of this book, from the wearisome cataloguing of washing garments to the most detailed description of facial characteristics.



Diplegic contracture.



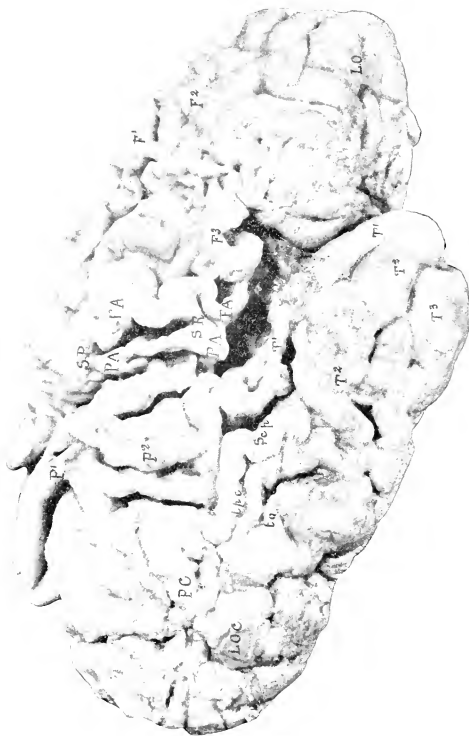
Crotin, aged 24 years, before treatment.



Crotin, aged 37 years, after treatment.

The volume is divided into two halves: it contains thirty-eight figures and nine plates.

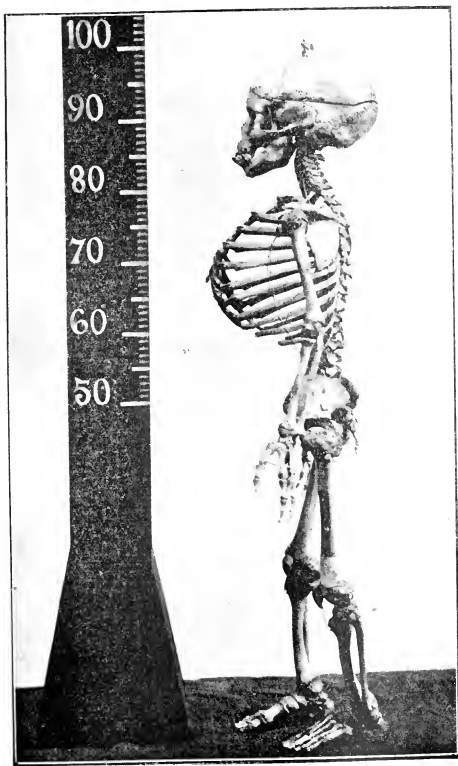
The first part is concerned with the administrative affairs of the asylum.



Right hemisphere of diplegic idiot.

The separation of the different varieties of imbecile and idiot children is discussed, and the immense importance of early segregation, with the organisation of proper training classes, is insisted on. M. Bourneville would severely condemn our English system by which we not only do not

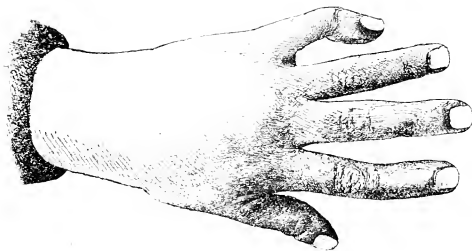
encourage segregation before the age of five years, but actually do not permit it. The remarkable results here detailed that follow the early training



Skeleton of cretin, aged 36 years.

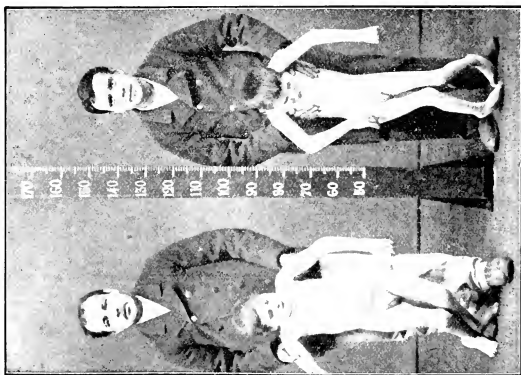
of apparently hopeless cases will raise the greatest astonishment in one who is only accustomed to the English way of doing things. Even with such a

difficult symptom as incontinence in idiots, various training methods have produced most beneficial results. Later on toilet exercises are taught: no detail is too trivial to be overlooked, so that the net conclusion seems to



Hand of microcephalic idiot.

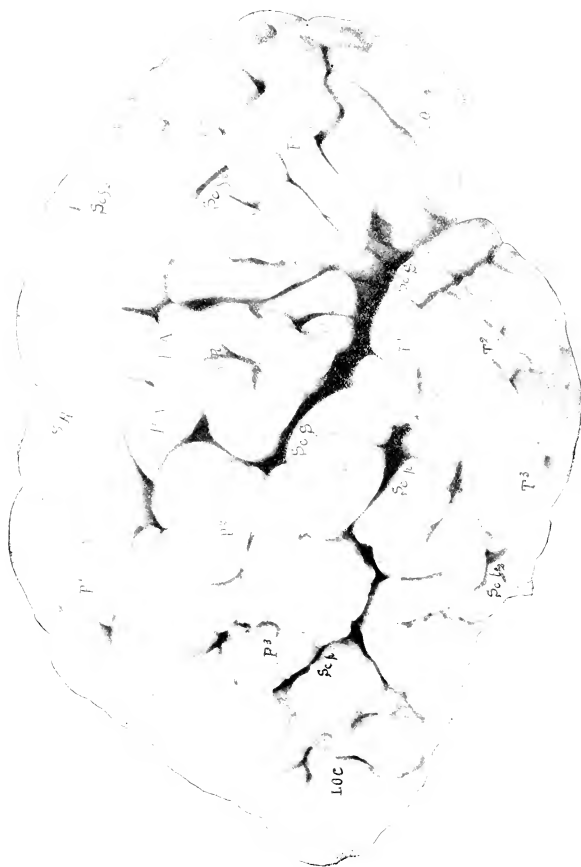
have been reached as if by magic. Respiratory and other movements are similarly taught with the greatest patience, and the whole system of medico-



Two brothers with family type of spasmodic diplegia.

pedagogy is here expounded. The *personne*?, population, movements, and general statistics of morbidity and mortality are narrated.

The second part is entitled "Clinique, Thérapeutique et Anatomie Patho-



Right hemisphere of diplegic idiot.

logique." It consists of twenty-four memoirs, some of high value, written by members of the asylum staff. A feature of this part of the book is the illustrations, some of which are reproduced. From the different memoirs the following points are selected as being of especial interest. Phillippe and Oberthur give the results of examination of the brains of two Mongolian idiots, confirming the findings they had announced a year or two previously. A special discrete form of cortical meningo-encephalitis existed, affecting especially the most superficial layer of tangential fibres; the cortical cells escaped. Two other Mongols are described fully from a clinical aspect by Bourneville. He also has an article on the relation of parental alcoholism to epilepsy; the fallacies, however, in no wise differ from those seen in his previous writings on this subject. The same author describes in detail a special form of hand deformity observed in microcephalics; he promises a memoir later on the different varieties of hand deformities met with in idiots.

Attention is drawn by Bourneville, in another article, to scoliosis as a symptom of myxedema and cretinism; reference is made to Chipaults' recent announcement of the discovery of this occurrence, and it is pointed out that for some fifteen years it has been recognised by various neurologists in their writings. Crouzon gives a useful summary of the technique employed in the elicitation of certain reflexes, confining himself to the better known ones. Bourneville publishes, in a valuable memoir of fifty pages, a complete history of a cretin who was under continuous observation for twelve years. Puberty never occurred, although he lived to the age of thirty-six. A detailed description of the skeletal changes is given, this being the first one on record: the main point brought out is the disproportion between the periosteal growth and the epiphyseal. A chemical analysis of the skin and a histological study of the brain are also added. A case of congenital hereditary partial canities is recorded, with some interesting remarks on this rare condition. Several cases of bleeding into the skin and mucous membranes during epileptic attacks are recorded, and their relation to ecstatic stigmata discussed. Bourneville adds 106 observations to his previous extensive statistics bearing on consanguinity in relation to the production of nervous affections, a *note* to which he attaches but little importance. Bourneville and Crouzon relate two cases of family spasmodic diplegia, and review the literature thereof. In the post-mortem examination of one of the cases, bilateral cerebellar atrophy was the most noteworthy feature.

In conclusion, this volume well maintains the reputation gained by its predecessors, and we can commend it to anyone who wishes to gain an insight into the work that is being done at the present time in imbecility and idiocy.

A. ERNEST JONES.

THE STERILISATION OF THE HANDS: A BACTERIOLOGICAL INQUIRY INTO THE RELATIVE VALUE OF VARIOUS AGENTS USED IN THE DISINFECTION OF THE HANDS. BY CHARLES LEEDHAM-GREEN, M.B., F.R.C.S. Pp. 102. Publishers: Simpkin, Marshall, Hamilton, Kent & Co., London. 1904. Price 2s. 6d. net.

It is somewhat curious how little work has been done in England on the direct investigation of the subject of hand sterilisation, and Mr. Leedham-Green is to be congratulated on having stepped into the breach so effectively as he does in this volume. In this matter many, instead of basing their

technique upon research, have been content with very uncertain foundations, and in discussion have upheld their practice solely on that very elastic and uncertain term, "satisfactory results." Hand sterilisation is a question which lends itself to exact investigation by laboratory experiment, and in view of this there is no excuse for the substitution of patients for test tubes, and of arguments based upon clinical results for those derived from bacteriological inquiry. Mr. Leedham-Green's researches cover practically all the recognised methods of cleansing the hands which have been recently recommended. His method of investigation is an exacting one, and his results are recorded in a rational and striking manner. The value of a research in which all the different methods are submitted to a uniform test is obvious; it almost eliminates the personal equation and enables one to arrive at conclusions as to the true relative value of these methods. These conclusions may be summed up under three heads: (*a*) That a surgeon who demands that his hands should be uniformly bacteriologically sterile must wear impermeable gloves; (*b*) that provided the cosmetic condition of hands is good they can be sterilised with a fair degree of reliability; (*c*) that the use of dilute alcohol as an essential item in the process gives results which are much superior to those obtained by any other method hitherto suggested in which it is not employed. The particular modification of the alcohol-sublimate method which Mr. Leedham-Green recommends is one in which a 70 per cent. sublimate alcohol (1 in 1000) is substituted for the 1 in 500 watery sublimate solution of Fürbringer's method. Dilute alcohol has a marked bactericidal action, but its effectiveness also depends upon its property of hardening and preventing the detachment of the superficial cells of the epidermis. There are several matters of much practical importance dealt with in this book, in addition to the record of experiments; in particular must be noted the section on the duration of the sterility of a disinfected hand, and that on time as a factor in diminishing the infectivity of the hands. Mr. Leedham-Green's work has extended over a considerable number of years; it is work which has called for much patience, but it is well worth all the time he has spent on it, and deserves the thanks of all operating surgeons.

K. W. MONSARRAT (Liverpool).

SOME DISORDERS OF THE SPLEEN (The Lumsden Lectures for 1904).

By FREDERICK TAYLOR, M.D. J. & A. Churchill, London, 1904.
Price 3s.

WE do not share the pessimistic forebodings that assailed the lecturer in his introductory remarks—the preliminary stage fright which often heralds a notable success, as in the present instance.

Dr. Frederick Taylor deals with his subject from the clinical and coarse anatomical standpoints, and he has drawn largely on the post-mortem records of Guy's Hospital, his own clinical observations, and on the published observations of others.

The first lecture comprises capsulitis; enlargements from various causes, in which he demonstrates that two thirds of his material was of an infective or microbic origin; atrophy, mostly associated with new growths in the body; new growths; infection as a cause of enlargements; phthisis in which the majority of examples were not lardaceous; infective endocarditis; histology of the spleen in infective processes; cirrhosis and splenomegaly; disorders of the blood; and, in conclusion, an enumeration of a collection of cases of

splenomegaly difficult of diagnosis, dependent upon a variety of causes, together with the blood-counts of the patients.

Lecture II opens with a further record of cases of doubtful origin, and passes to a description of splenic anæmia, of which he gives numerous clinical illustrations and a review of the condition of the spleen, the cause of the histological changes in that organ, together with a variety of hypotheses as to the relationship of the anæmia to the splenomegaly. Banti's disease is next discussed, and the importance of obtaining the early history in such cases is dwelt upon, seeing that alcoholic cirrhosis may be mistaken for that disorder. The lecture concludes with an account of the spleen in association with pernicious anæmia.

Lecture III deals with anæmia pseudoleukæmica infantum at some length, with a critical survey of the present state of our knowledge and the deductions which have been drawn by various writers on their own observations. Hodgkin's disease, with its occasional passage into lymphæmia, is dwelt upon, as also the clinical difficulty of distinguishing the glandular hyperplasia from tuberculous adenitis. Leukæmia, chloroma, and primary and secondary anæmias are adequately treated.

In conclusion, Dr. Frederick Taylor considers that the spleen is more sinned against than sinning, and that it is rarely responsible for the lesions which it suffers or for the complaints with which it is associated.

This valuable monograph should be in the hands of every practitioner who wishes to keep abreast of the march of knowledge on the behaviour in disease of an organ to which increasing attention should be directed and concerning which more information is required.

Preparations.

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Erratum.—Page 497, line 21, November issue. *Liquor strychninæ* 5ij. should read *Liquor strychninæ* ʒij.

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